American West

The land and its people

May/June 1985 $3

A Falconer's Search for Longwings

Coming Shakes in Earthquake Country

Steel-Wheeled Puff Roars No More

Painter of Prairies: Harvey Dunn

UNIVERSITY MICROFILMS
SERIALS PROCESSING DEPT
300 N ZEEB RD
ANN ARBOR MI 48106

1430

LITTLE AMERICA

A Tradition of Excellence

Our time honored traditions of superior service, careful planning, meticulous attention to details and the sincere desire for your satisfaction, have built a reputation for the most successful hotels, resorts and convention facilities in the West.

LITTLE AMERICA FLAGSTAFF
P.O. Box 850
Flagstaff, AZ 86002
(602) 779-2741

LITTLE AMERICA SALT LAKE CITY
P.O. Box 206
Salt Lake City, UT 84101
(801) 363-6781

LITTLE AMERICA WESTGATE
1055 2nd Avenue
San Diego, CA 92101
(619) 238-1818

LITTLE AMERICA CHEYENNE
P.O. Box 1529
Cheyenne, WY 82001
(307) 634-2771

LITTLE AMERICA WYOMING
P.O. Box 1
Little America, WY 83939
(307) 875-2400

SUN VALLEY COMPANY
Sun Valley, ID 83353
(208) 622-4111

ADVERTISEMENT

50% Hotel/Motel Discounts Available

Now available in this issue of the *American West Magazine* is a special half price rate program for those travelers to enjoy substantial savings of 50% off hotel expenses and stay at the best accommodations at participating leading hotels, motels and luxury resorts that include **Marriotts, Sheratons, Holiday Inns, Stouffers, Ramada Inns, Howard Johnsons, Travelodge,** plus many others.

Members receive 50% discounts on lodging accommodations with the Travel America Coupon Book. Those who will be traveling on auto trips, vacations, weekend getaways, trips to your favorite summer and winter resorts, or visiting friends and relatives will find this program a must.

SAVE 50% ON NEXT HOTEL STAY. As a Travel America member you receive 50% off the regular published rates as indicated on each individualized coupon which gives a complete description of facility, nearby attractions and restrictions, if any. Obviously you can save as much as $100 or more on a single trip, or take a trip that ordinarily you didn't think you could afford.

COMPARE THESE SAVINGS. This plan should more than pay for itself the first time you use it. When you consider the example of a three-night stay in a hotel that cost $48.00 per night, the regular published rate charge would be $144.00, but as a Travel America member you pay only half the price and save $72.00.

CHAINWIDE DISCOUNTS. Included at no extra charge are chainwide discounts of 10% to 25% at Marriotts, Ramada, and Howard Johnson's in over 1,000 locations almost anywhere you travel to in the U.S. and Canada. The more you travel the more you'll save, and you can use them as often as you wish.

DISCOUNTS OF 25% ON CONDOMINIUMS AND MEALS. Starting now through June 30, 1985, all readers can join this program and enjoy 25% discounts at restaurants nationwide, plus 25% off regular rates at hundreds of condominium rentals at leading resorts nationwide.

To take advantage of this money-saving program, complete and mail your application with payment today. For credit card orders, call toll-free 800-528-6050, ext. 1286. Inquiries call (703) 684-7000.

Why All Hotel Travelers Save 50% Off Hotel Bills

You'll never pay full price while saving 50% at preferred leading hotels and motels nationwide

Afford the Best and Pay Less
With the Travel America at Half Price coupon book you receive 50% discounts on your lodging accommodations at participating leading hotels, motels and luxury resorts that include **Marriotts, Hiltons, Sheratons, Holiday Inns, Stouffers, Ramada Inns, Howard Johnsons, Best Westerns,** plus hundreds of other famous name accommodations in major cities and almost every state including Hawaii, Canada, and abroad.

Your Own Half Price Discount Book
Each member receives the '85 edition of the Travel America book with all coupons valid through December 31, 1985. And, that's right, they're good for up to two people sharing the same room.

Consider These Examples of Savings
This plan should not only pay for itself the first time you use it, but will offer substantial savings throughout the year. For example, from your book select a weekend getaway to a favorite city or resort for a three night stay that costs $126.00 . . . you pay only $63.00. Travel on an auto or business trip and take a one-night stop over in a room that costs $52.00 per night . . . you pay only $26.00 . . . vacation in Disneyworld for seven days and six nights that costs $228 for your hotel stay . . . you pay only $114.

In these three trips alone you saved $203, and it afforded you the luxury of first class accommodations.

SPECIAL 25% DISCOUNT AT RESTAURANTS & CONDOMINIUMS
Enjoy savings of 25% discounts at hundreds of condominium rentals & restaurants nationwide. These are at leading condominium resorts, and up to (4) people can receive the full 25% off their food bill.

Other 50% Savings—FREE With Membership
As a member you also receive 50% discounts at major tourist attractions, plus preferred car rental and auto maintenance discounts.

No-Risk 15 Day Trial
You don't have to take our word for how much this half price plan will save you. Examine it for 15 days and, if for any reason you are not completely satisifed, simply return it for a **full refund guarantee of $26.95.** There is no risk except to know that your next hotel stay will be 50% less than what you expected to pay.

CREDIT CARD ORDERS ONLY
CALL TOLL FREE
800-528-6050 EXT. 1286

Offer Expires June 30, 1985

EXTRA BONUS! 25% FOOD & CONDOMINIUMS DISCOUNTS

MAIL TODAY FOR FREE 15-DAY TRIAL **SPECIAL HOTEL OFFER**

☐ **MEMBERSHIP FEE—NOW ONLY $26.95**

Yes! Send me the TA coupon book at $25.00, plus $1.95 for postage, insurance and special handling. I may cancel within 15 days for full refund of $26.95 if unused or undamaged.

Name (Please print or type) _____

Address (No P.O. Box Accepted) _____

City _____ State _____ Zip _____

Telephone Business ( ) _____ Home ( ) _____

☐ Payment Enclosed ☐ Master Card ☐ VISA Signature _____

Card # _____ Expiration Date _____

Mail To: TRAVEL AMERICA AT HALF PRICE, c/o First American Bank 740 15th Street, N.W. Washington, D.C. 20005

INQUIRIES CALL 703-684-7000

Please allow 4 weeks delivery. Use street address only to facilitate UPS delivery. 1575

ACT NOW!

YES, SEND ME PADRE JUNIPERO SERRA COINS AT ONLY $89 EACH. California residents add 6% sales tax. All orders add $5. for shipping and handling.

Name _____ Address _____ City _____ State _____ Zip _____

Phone# _____

☐ Check or Money Order Enclosed $ _____

☐ Charge My Credit Card ☐ MC ☐ Visa ☐ AM EX ☐ Carte Blanche ☐ DC

Card # _____ Exp. Date _____

Signature _____

MAIL TO: SILVER DOLLAR COLLECTORS CLUB, LTD. 238 N. INDIANA AVE. P.O. BOX 1867 VISTA, CALIFORNIA, 92083 (619) 941-1930

INVESTMENT OPPORTUNITY –

GET IN AT GROUND FLOOR PRICES!

PADRE JUNIPERO SERRA COINS FOUND

EXTREMELY LIMITED MINTAGE ONLY 9000
.900 FINE SILVER IN BRILLIANT MINT CONDITION

LOCKED IN A MISSION VAULT FOR OVER 20 YEARS

This rare silver commemorative coin, minted by the United States Mint, has been locked in the vault of a Santa Barbara Mission and forgotten since 1963—

SELDOM DO WE FIND AN ITEM THAT HAS BEEN SO TOTALLY IGNORED AND FORGOTTEN — UNTIL NOW

OBVERSE

REVERSE

Shown larger than actual size.

- **SDCC Has Been Commissioned To Release These Recently Rediscovered Treasures To The Public.**
- **We Feel That This Is A Major Rare Coin And Are Going To Offer The First 1000 At Wholesale Prices.**
- **In 1963, The United States Mint In Philadelphia Was Authorized By An Act Of Congress To Strike a Unique National Coin — Commemorating the 250th Anniversary Of The Birth of Padre Junipero Serra.**
- **JOHN F. KENNEDY Signed The Authorizing Act Of Congress Into Law On October 16, 1963 Approximately One Month Before His Tragic Assassination. Thus Tragedy Made The Serra Medal a Historic Dual Momento Of A Saintly Priest And A Beloved President.**

THERE IS GOING TO BE A LOT OF PUBLICITY ABOUT PADRE SERRA AND THIS COIN:

- **NBC is planning a documentary on Padre Junipero Serra that will be aired this year.**
- **Informed sources say that Pope John Paul will come to California in 1985 to proclaim Padre Junipero Serra a Saint.**
- **The U.S. Postal Service will issue a 44¢ postage stamp in July honoring Padre Junipero Serra.**
- **Coin World newspaper will be doing an article on these coins in an upcoming issue.**
- **An in depth article, including an interview with Frank Gasparro, the coin's designer, will be highlighted in an issue of Coinage Magazine describing in detail the complete story behind these extremely rare historic National Coins.**

ACT NOW TO RESERVE ONE OR MORE OF THESE "CHANCE OF A LIFETIME" INVESTMENT COINS FOR YOURSELF AND YOUR FAMILY. THE FIRST 1000 COINS WILL BE SOLD AT THE WHOLESALE PRICE OF ONLY $89 each

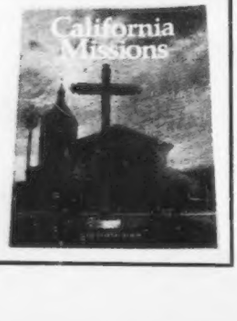
ALL ORDERS WILL BE NUMBERED AND PROCESSED AS RECEIVED. LIMIT 10 COINS PER ORDER. NO DEALERS PLEASE.
Remaining coins will retail for $125 each.

CALL TODAY (619) 941-1930 Collect OR MAIL THE CONVENIENT ORDER BLANK AT THE TOP OF THE PAGE.

Full 30 day money back guarantee if not satisfied.

FREE Mission Booklet
A $4.95 Value — Free
With each order

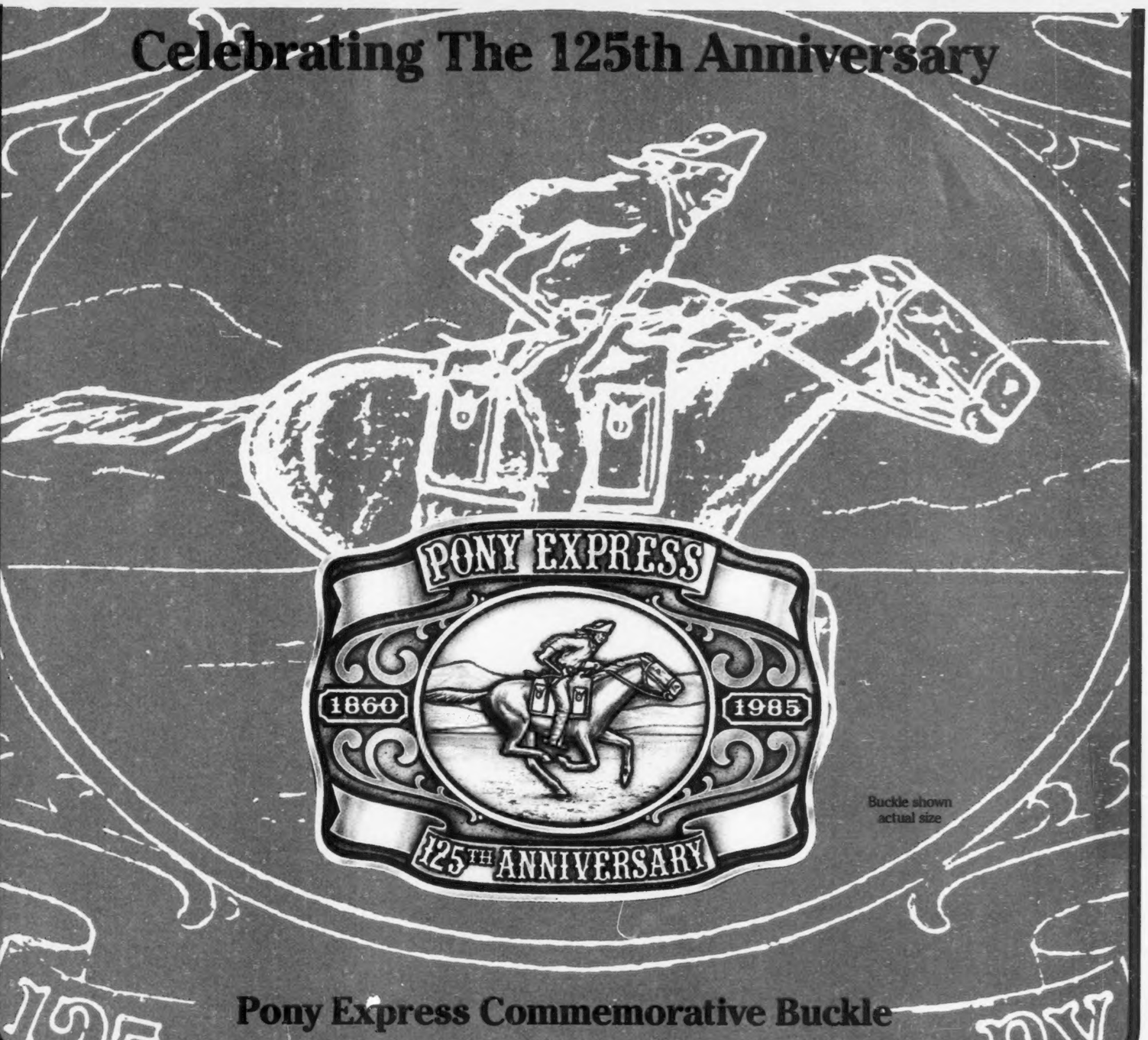
You are invited to discover the amazing achievements and historic deeds of the frail Majorcan scholar who in 1769 began California's first settlements.



SILVER DOLLAR COLLECTORS CLUB

SILVER DOLLAR COLLECTORS CLUB, LTD.
238 N. Indiana Ave.
Post Office Box 1867
Vista, California 92083
(619) 941-1930

Celebrating The 125th Anniversary



Buckle shown actual size

Pony Express Commemorative Buckle

Limited edition belt buckle minted in Solid Sterling or Antiqued Jeweler's Bronze

* * * * * * *

On April 3, 1860, **TWO MEN IN TWO CITIES NEARLY 2,000 MILES APART,** sprang forth marking the beginning of the Pony Express. The riders sped toward each other riding 35 to 75 miles and then passed the mail to the next rider. Pony Expressmen worked towards grueling delivery time of 10 days. These horsemen braved frontier, weather, threat of Indian attack and limitations of themselves and their mounts. By the close of 1861, telegraph lines spanned the U.S.A. bringing the Romantic Pony Express Era to an abrupt end.

On the **125th ANNIVERSARY OF THE PONY EXPRESS,** we offer this buckle to commemorate those brave men. Minted from hand-engraved steel dies in massive ingots of Solid Sterling Silver or Jeweler's Bronze. Each buckle is then hand-finished to achieve brilliance and details simply not available in less costly buckles.

SOLID STERLING SILVER BUCKLE has a brushed and antiqued background against which the Pony Express rider stands out in sharp relief.

PREMIUM JEWELER'S BRONZE BUCKLE is minted from the same dies as the Silver version but is offered in a premium bronze alloy used by jewelers to achieve finest detail and a lustrous finish. This buckle is also antiqued and polished entirely by hand.

HEIRLOOM FOR GENERATIONS TO COME. The Pony Express Belt Buckle is a magnificent tribute to this great American era . . . . a buckle you will treasure and wear proudly. Your buckle arrives in a handsome gift box along with specially written commentary on the Pony Express Era and a certificate of authenticity attesting to your buckle's limited edition status.

STRICTLY LIMITED EDITION

The Pony Express Buckle will only be minted and available in 1985. The dies will then be permanently destroyed to preserve the rare limited edition status of your Buckle. Each Buckle will be individually serial numbered on the reverse.

UNCONDITIONAL GUARANTEE

If, for any reason whatsoever, you are not completely satisfied with your Buckle, you may return it within 15 days for a full refund.

ORDER FORM

The Historic Providence Mint
Dept. M AMW-20 222 Harrison Street
Providence, Rhode Island 02907-2144

HPM 783

Please send me the Pony Express Buckle(s) I've marked:

_____ Solid Sterling Silver with 24kt. Gold electroplate for $185 each (M 70)

_____ Solid Jeweler's Bronze, hand-finished, antiqued and polished for $19.50 each (M 69)

I prefer to pay as follows:

☐ DIRECT: I've enclosed my check or money order for the full amount.

☐ CREDIT CARD: Please charge my credit card as shown for the full amount.

☐ Diner's Club ☐ Master Card
☐ American Express ☐ Visa

Card No. _____ Exp. Date _____

Signature _____

Name _____

Address _____

City _____ State _____ Zip _____

FOR FASTER CREDIT CARD SERVICE

Call our TOLL FREE number right now. Our Operators are on duty 24 hours a day. Please have your credit card available. 1-800-543-3000 – Ask for Operator # 219

THIRD ANNUAL PHOTO CONTEST (See page 64)

May/June 1985
Vol. XXII, No. 3

American West

PAGE 44 PHOTO BY BILL GIRDEN

PAGE 28 COURTESY NATL GEOPHYSICAL DATA CENTER

Earthquake Hazards in the West
by Stephen L. Harris
What can we expect from our trembling earth? 28

Plowing and Painting the Prairie
by William T. Anderson
Dakota farm boy Harvey Dunn portrayed brave pioneers in a harsh land 38

To Hold a Piece of Western Skies
by Stephen Bodio
A master falconer's search for longwings 44

A Requiem for Steam
by David Weitzman
The roar of fire and steam and moving steel thrilled the senses 52

View from the West 6
Photographing the West 10
Western Lookout 13
Western Skies 20
Hidden Inns & Lost Trails 22
Letters to the Editor 25
Western Books in Brief 60
Western Art Notes 71
Western Lore 74
Western Snapshots Today 78
Western Snapshots Yesterday 80

PHOTO BY BRIAN PARKER/TOM STACK & ASSOCIATES

Cover

Black eyes wide, long wings raised, and strong "toothed" bill agape, the handsome bird on our cover displays distinguishing features of a peregrine falcon. Marked by a dark crown and "sideburns" or "mustache," the "falcon gentle" of the Middle Ages has long been a noble companion to falconers the world over. To attain a special magical bond that man and bird share in the ancient sport of hawking, the falconer is driven to persist through the disappointments and piercing discomforts of the training regimen. Step into the shoes of a master falconer as he seeks a bird of prey—his hunting consort—in remote sandstone cliffs of New Mexico.

AMERICAN WEST (ISSN 0003-1534) is published in January, March, May, July, September, and November for $15 per year by American West Publishing Company, 3033 N. Campbell Ave., Tucson, Arizona 85719. Second-class postage paid at Tucson, Arizona, and additional post offices. POSTMASTER: Send form 3579 to AMERICAN WEST, Box 1960, Marion, Ohio 43305.

ALOHA
The Magazine of Hawaii and the Pacific®

EXPERIENCE HAWAII ALL YEAR LONG...

SUBSCRIBE NOW

FOR ONLY $14.95
AND SAVE
$6.00 OFF
THE COVER PRICE!

The only magazine that brings you the color and beauty, mystery and romance, excitement and fascination of Hawaii.

- Breathtaking Full Color Photography
- Spectacular Coverage of Hawaii's Majestic Natural Wonders
- Travel Tips—Where to go, What to do, and How to do it!
- Features From the Fascinating History to the Life-Style of Today

ALOHA . . . Your passport to the Hawaii few visitors ever see.

DETACH CARD AND MAIL

TODAY!

VISIT HAWAII ALL YEAR FOR ONLY $14.95 AND SAVE $6.00 OFF COVER PRICE!

NAME _____
(please print)

ADDRESS _____

CITY _____ STATE _____ ZIP _____

☐ Enter a new subscription for me—6 issues for only $14.95.
☐ Bill me. ☐ Payment enclosed.

Add $3 for Canadian and foreign subscriptions. Please allow 8 weeks for delivery.

4501

SEND HAWAII ALL YEAR FOR ONLY $14.95 SAVE $6.00 ON EACH GIFT SUBSCRIPTION

MY NAME _____
(please print)

ADDRESS _____

CITY _____ STATE _____ ZIP _____

☐ Bill me ☐ Payment enclosed
Please send a gift subscription—6 issues for only $14.95—to:

NAME _____
(please print)

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Add $3 for Canadian and foreign subscriptions. Please allow 8 weeks for delivery.

4501

SEND HAWAII ALL YEAR FOR ONLY $14.95 SAVE $6.00 ON EACH GIFT SUBSCRIPTION

MY NAME _____
(please print)

ADDRESS _____

CITY _____ STATE _____ ZIP _____

☐ Bill me ☐ Payment enclosed
Please send a gift subscription—6 issues for only $14.95—to:

NAME _____
(please print)

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Add $3 for Canadian and foreign subscriptions. Please allow 8 weeks for delivery.

4501

ALOHA ALOHA
The Magazine of Hawaii and the Pacific — The Magazine of Hawaii and the Pacific

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS • PERMIT NO. 10615 • SAN DIEGO • CA

Postage will be Paid by Addressee

ALOHA
The Magazine of Hawaii and the Pacific®

Subscription Service Dept.
P.O. Box 27810
San Diego, CA 92128-9972

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS • PERMIT NO. 10615 • SAN DIEGO • CA

Postage will be Paid by Addressee

ALOHA
The Magazine of Hawaii and the Pacific®

Subscription Service Dept.
P.O. Box 27810
San Diego, CA 92128-9972

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS • PERMIT NO. 10615 • SAN DIEGO • CA

Postage will be Paid by Addressee

ALOHA
The Magazine of Hawaii and the Pacific®

Subscription Service Dept.
P.O. Box 27810
San Diego, CA 92128-9972

ALOHA

The Magazine of Hawaii and the Pacific®

The gift that says, "Thinking of You— All Year Long"

At last, there's a way for you and your friends to visit Hawaii all year long—no matter how far away you live and no matter how difficult it is for you to get away. It's ALOHA . . . the fabulous magazine of Hawaii and the Pacific.

Give ALOHA as a gift. For friends and associates who would love to visit Hawaii, a year's subscription is a present they'll treasure. An announcement card will be sent to you so you can notify your friends of their gifts.

You too can visit Hawaii all year long through the pages of ALOHA. It's the magazine that is written, edited, designed and published by people who are passionately in love with Hawaii and the good life it offers.

(See other side for subscription details.)

ALOHA
The Magazine of Hawaii and the Pacific®

IS EASILY ONE OF THE MOST BEAUTIFUL MAGAZINES IN AMERICA

Try the next issue of ALOHA *Magazine and experience America's Island Paradise at no risk or obligation to you. Simply clip the coupon and Hawaii will be delivered to you in glorious color.*

If you're already in love with Hawaii, or think you might like to be, this spectacular magazine is for you.

Issued every other month, ALOHA is a roundup of the beauty, the mystery and the romance, the excitement and fascination of these extraordinary islands created by fire and sculpted by the sea.

Through the pages of ALOHA, you'll comb black sand beaches, trek through rain forests and volcanic deserts, examine plant and wildlife found nowhere else on earth, witness the eruptions of Kilauea and Mauna Loa, catch glimpses of the remote northwestern Hawaiian Islands that are vestiges of once great volcanoes, visit ancient historical sites and modern man-made wonders, explore the underwater world around the islands, relive the cataclysmic tidal waves that have devastated Hawaii.

You'll see whaling villages on Maui and pineapple plantations on Lanai. You'll go back in time to hear stories of Father Damien, of the kings and queens who once ruled this land.

There will be articles about the enormous variety of entertainment and amusements, stories about Island sports, pieces on music and dance, recipes for Island food, calendars of upcoming events, profiles of the most unforgettable personalities of Hawaii, tips and hints from insiders on little-known things to see and do, places to go, and the best times to do whatever it is you want to do.

Durably bound with a hard spine and heavy cover, ALOHA, is positively opulent. Inside, our award-winning, brilliant, full-color photography and art will come alive. It is written, edited, designed and published by people who are passionately in love with Hawaii and the good life it offers.

Every issue presents a breathtaking Pacific Travel Supplement spotlighting exotic ports of call beyond Hawaii and into the Pacific and Asia.

If you would like to explore the Islands all year long and get to know the Hawaii few visitors ever are privileged to see, this subscription offer is for you.

BECOME A NEW SUBSCRIBER AND SEE THE NEXT ISSUE OF ALOHA, THE MAGAZINE OF HAWAII AND THE PACIFIC, WITHOUT COST OR OBLIGATION.

Send no money. Just fill in and return the order card or use the coupon below. We'll enroll you as a New Subscriber, send you the very next issue and bill you $14.95 for your first year (six bi-monthly issues). If you're not completely satisfied, tell us to cancel, return your bill unpaid, and keep your first issue FREE.

New Subscription Order

YES-Please send me the very next issue of ALOHA. Enroll me as a New Subscriber and bill me $14.95 for my first year. I understand that this is a discount of over $6.00 off the regular price and that if I am not satisfied I may tell you to cancel, return the bill unpaid and keep my first ALOHA issue free. Allow 8 weeks for delivery.

Name (please print) _____

Address _____

City _____

State and Zip Code _____

ALOHA The Magazine of Hawaii
and the Pacific
P.O. Box 3260, Honolulu, HI 96801

4500

View from the West

PHOTO BY TOM PEW

I have one of those lightweight two-man tents shaped like an ice-cream cone sliced in half lengthwise. The ice-cream-scoop end has a crawl-through opening. At the pointed end is a hand-sized piece of mosquito netting for ventilation. This little tent and I have traveled mountain ranges, deserts, canyons, and beaches together. It has kept me from cold, rain, and mosquitos, and one time, above Lake Hetch Hetchy in the Sierra, from a curious brown bear who thought he'd check out the contents of the tent by coming in the ventilation panel.

Whenever I see the tent among my camping things, I am reminded of the brown bear (who fortunately was as intimidated by a shouting tent, as I was by a giant brown nose at the ventilation panel), but even more I'm reminded of the first camping trips I took with each of my children, always accompanied by our liver-and-white hound-dog, Enkidu.

Those first camp-outs were close to home, and the dog was always with us. He was both a good companion and a wilderness safety factor. He knew each child by name and could track him down on command—a game of hide-and-seek he'd learned on his own, which was put to practical use in the mountains more than once.

Enkidu still has the nose, but like a professional athlete, other parts of his body are beginning to go. On our morning runs these days he follows behind. Used to be he always ran ahead. He'd cover twice the distance I did as he ranged out on either wing of our path, seeking out those things of interest to dogs while he efficiently marked his territory over the scents of interloping coyotes and dogs. Used to be he had to glance back impatiently from time to time to check on my progress, to make certain I hadn't taken the arroyo shortcut back to the house, and left him crisscrossing and backtracking, nose to the ground, to find my errant trail. Used to be he heard with a quick ear, responded with a snap to his name, or to the soft pat I made against my leg bringing him to a running heel whenever I heard a car on the desert road we run together.

Today he can hear hardly at all. I worry about him on the road. He's the one who cheats at the cutoff and returns to the house without me, and he's so far behind by that point I don't even know he's left the course. He ignores the rabbits and quail we flush, doesn't bother to mark his territory (except at the closest proximity to the house), and runs by my side unbidden whenever a young dog crosses our path.

He doesn't know cars are on the road until they are practically upon him and he feels their vibrations through his paws. Then he's visibly startled, not knowing which direction to move. I've thought of leaving him when I run, but don't have the heart. He still waits for me in the morning. The symbolism of not including him would be hard on both of us, if not as bare-toothed as the face we saw together on the road one day this Spring.

On that day we took off, as usual, just a little before sunrise. We were running in that sweet, silent empty-cup of the day when nothing is afoot in the desert except the fraternity of animals who know this time by biological impulse. There's about a half hour then when the world is neither light nor dark. As the sun creeps toward one's narrow corner of the earth, the place seems like a small room, comprehensible and definable. It's a world where things fit in their place. There's a space there—measured more in half-lit time than distance—when a man and his dog on the run can go on together forever. God and demi-god, immortal, skimming the turning globe towards the sunrise.

But Enkidu dropped behind, as he must these days. Took the shortcut. Left me to complete the last stretch by myself. As I covered the last leg I could hear him barking, and in the gray light I saw a strange animal facing me on the road ahead. Slowly a gray face emerged, grayer than the gray light surrounding it. Black nose up. Still. Staring.

With a little shiver I realized Enkidu had completed his run with a young coyote trailing behind, following silently on soft pads. And now coyote faced me. I imagined his yellow eyes. His face grew large in the poor light. Not menacing, mind you, just a face that didn't turn away, and it seemed to say: "Not just the old dog, then, but you as well on this road this morning."

And with that, casually, the sleek creature turned and eased off into the desert. Faded away effortlessly. More in the order of disappeared, the way coyotes do. But up and down the gray-dawn ridges of my brain, he trotted, leaving me with his cold dog-nose poking into the midday of my mortality.

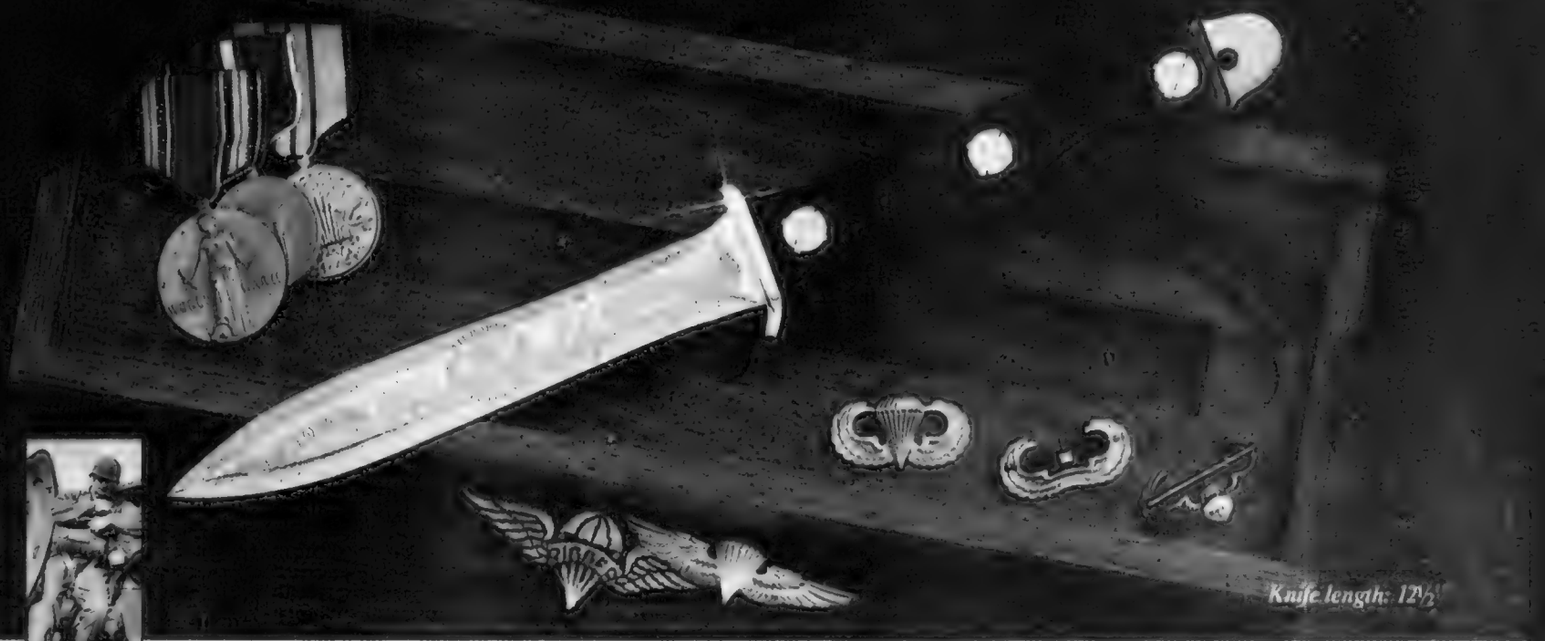
I turned and on an impulse barked towards the place the sun would soon find the horizon. In that instant the desert rose in answering voices of a whole tribe of coyotes. A thousand voices of coyote laughter warbled back, then rolled away across the ridges, up the canyons, around the mountains, over the desert and on, raising every neck of every coyote in the land.

Tom Pew

Proudly Presenting...

THE AIRBORNE COMMEMORATIVE FIGHTING KNIFE

A limited edition of 2500, embellished with 24-karat gold, honoring America's Airborne Forces. This is the first in the series, "The American Elite Forces Fighting Knife Collection," which personifies the confidence needed to fight outnumbered and win!



Airborne
All The Way, Sir!

The dedicated Americans of our elite force units are hand picked, highly trained, especially physically fit, motivated in the extreme and ready at a moment's notice to enter the jaws of death—to fight outnumbered in defense of our freedom.

The American Historical Foundation is proud to honor these often-unheralded heros through "The American Elite Forces Fighting Knife Collection."

The first knife in this series—now available—pays tribute to U.S. Airborne Forces. This is a strictly limited edition of only 2500. Serial No. 1 is being presented to the Infantry Museum at Ft. Benning—where the Airborne was founded.

The Airborne Commemorative Fighting Knife is a deluxe, hand finished Ek Commando Knife, Model No. 4. Since 1941, Ek knives have proven themselves in the hands of American military men on the battlefields of World War II, Korea, and Vietnam. They are one of the—if not the—leading private-purchase military fighting knives in American history.

The Airborne Commemorative Fighting Knife is bench made by the Ek Commando Knife Company. Their motto is "Made in America, by Americans, for Americans"—and they mean it!

Most Ek Commando Knives were available only to active-duty military personnel—which is why they are better known among veterans than among civilian collectors. This marks the first time a special, presentation-grade Ek Commando Fighting Knife has ever been announced to the general arms-collecting public. But only 2500 of the Airborne Commemoratives will be made.

A Battleworthy Fighting Knife

This is a double-edged, battleworthy fighting knife. It is one of the strongest knives in the world because it is made with more steel than any other knife of its type and size—with a full-length, full-width tang, which extends ¾" beyond the grips to form the distinctive Ek "skull-crusher" butt.

The unique Ek "handprint" grips are perfectly contoured to fit the thumb and the ball of the hand, for maximum thrusting power. For this Airborne Commemorative, the grips are shaped from rugged, maroon-rosewood laminates—representative of the maroon beret, universally symbolic of Airborne forces.

24-Karat Gold Plating

A finely detailed Airborne drop zone combat scene is deeply etched along the full length of the 6⅝" blade, which is made of special Ek high-carbon stainless surgical steel. To highlight this pattern, the etched areas are plated with pure 24-karat gold. The jump wings—the badge of honor of America's "sky soldiers" and Airborne-qualified personnel of other service branches—with the motto "Airborne All The Way!" are proudly gold etched in the center. Even the extended butt is elaborately gold etched with the laurel leaf motif of victory.

This special collector's edition introduces lathe-turned "X"-head screws to affix the grips. Custom made of solid brass, these are mirror polished and heavily plated with pure 24-karat gold. The crossguard is thick, mirror polished solid brass, also plated with 24-karat gold.

The limited edition serial number between 0001 and 2500 is engraved on the blade shoulder, inscribed on the accompanying Certificate of Authenticity and registered with the Foundation—your further assurance of this strict edition limit.

First Option; No Obligation

When you reserve the Airborne Commemorative Fighting Knife, you are also guaranteed first option, without obligation, to reserve subsequent knives in "The American Elite Forces Fighting Knife Collection" one at a time in the months ahead. This way you can systematically acquire a complete set with matching serial numbers, on a convenient basis. These knives will honor U.S. Army Special Forces, U.S. Army Rangers, U.S. Navy SEAL/UDT, U.S. Marine Recon and U.S.A.F. Air Special Operations. They will be different models and variants of famous Ek military fighting knives, with different grip materials and blade combat scenes.

The Airborne Commemorative Fighting Knife is shown with the optional display case. This is genuine solid mahogany routed to perfectly hold and display your knife. A sliding plexiglass lid protects the knife from dust and unauthorized handling. The case, which measures 14" × 5" × 1½", can be easily wall mounted with the two brackets provided.

Whether or not you or a member of your family served in an elite force unit, your ownership and display of this knife will show your patriotic pride in our military and in the Americans who have defended our country in the past and who stand ready, today, to fight, if called.

How To Reserve

To place your reservation, you may call (a toll free number is available), use the reservation on this page or personally visit our headquarters. Satisfaction is guaranteed, or return within one month for a full refund. There are no shipping charges. For an additional $15 we will personalize your knife by engraving your name, rank, and serial number on the blade reverse. If you wish Airborne, Air Assault, Glider, Rigger, or USN/USMC jump wings etched on the blade reverse, just add $10.

When you place your reservation you will also be made a Member of The American Historical Foundation, and receive special information concerning the care and collecting of military arms and advance notice of all Foundation military projects. This is available exclusively through the Foundation.

Ek Commando Knives are extremely rare, so prompt action is suggested while these are available.

RESERVATION

Satisfaction Guaranteed or Return in 30 Days
To: The American Historical Foundation
1022 West Franklin Street, Dept. A24
Richmond, Virginia 23220
Telephone: (804) 353-1812
24-hour toll free reservations: (800) 368-8080

Yes, I wish to reserve each of the following etched and 24-karat gold-plated limited edition Elite Forces Commemorative Fighting Knives:

____ Entire Series

____ Airborne ____ Ranger ____ Special Forces

____ SEAL/UDT ____ Marine Recon ____ Air Spl. Ops.

☐ Please also send the mahogany display case, at $24 each, for each knife reserved.

☐ No payment at this time. Please charge or invoice the balance due per knife...

☐ in two equal payments.

☐ in full.

☐ My payment in full is enclosed ($195 per knife; display case, add $24).

Name .....

Address .....

.....

For Visa, MasterCard or American Express, please send account number, expiration date and signature. Virginia residents add tax.

A collection rich in meaning and craftsmanship...

AMERICA'S GREATEST STEAM LOCOMOTIVES

Authentic handcrafted pewter replicas of the historic steam locomotives that helped build our nation.

Shown smaller than actual size.

DM

Shown above are three of the steam locomotives in one of the many ways you might display them in your home or office.

In the golden age of steam locomotives, bustling railroad yards teemed with passengers who were to make, in mere days, trips that had once required months. Looming over the passengers were the giant engines themselves, towering "iron horses" that propelled America into a new age. Now the Danbury Mint invites you to come "all aboard" with twelve beautiful pewter replicas honoring America's greatest steam locomotives!

A unique collection of America's most famous steam locomotives

Each train in this collection had a unique and remarkable role in the conquest of the American frontier.

Included is the DeWitt Clinton, America's very first locomotive in regular passenger service. Here is the legendary "General," involved in the famous "Andrews Raid" during the Civil War. And the unforgettable locomotive Number 382, the "Cannonball," whose famous engineer, Casey Jones, died while trying to save the train from a tragic crash.

RESERVATION APPLICATION R31

AMERICA'S GREATEST STEAM LOCOMOTIVES

The Danbury Mint
47 Richards Avenue
Norwalk, Conn. 06857

Please return by
July 31, 1985.

Please accept my reservation to *America's Greatest Steam Locomotives,* a collection of twelve pewter scale replicas of the United States' most famous steam locomotives. Each replica will include a locomotive, tender, railroad track, and a hardwood display stand.

I need send no money now. The collection will be issued at the rate of one replica every three months. I will pay for each replica as billed in three monthly installments of $30 each. Any replica I am not satisfied with may be returned within 30 days for a replacement or refund, and this subscription may be canceled by either party at any time.

Name _____
PLEASE PRINT CLEARLY

Address _____

City/State/Zip _____

☐ Check here if you want each monthly installment charged to your: ☐ MasterCard ☐ VISA

_____
Credit Card No. Expiration Date

Signature _____

Allow 8 to 12 weeks after payment for initial shipment.

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 456 NORWALK, CONN.

POSTAGE WILL BE PAID BY ADDRESSEE

THE DANBURY MINT
47 Richards Avenue
P.O. Box 5270
Norwalk, Connecticut 06857

Also, the Union Pacific Number 119 which was present at the famous "Golden Spike" ceremony completing the transcontinental railroad. From the "Hiawatha" to the "Chattanooga Choo Choo," all these trains represent the irrepressible ambition and drive of the pioneering American!

Authentic scale replicas handcrafted in American pewter

You won't find a collection that exceeds this one in quality. Each replica is an authentically scaled reproduction of a classic American steam locomotive, handcrafted in fine pewter. Only pewter, after all, with its rugged, proud luster and substantial heft, could possibly express the massiveness and dignity of the great old iron horses.

Impressive size allows for incredible detail

The precise detail of these replicas lends them an unprecedented realism. Because of the replicas' exceptional size and weight – some measure up to ten inches long, and contain well over a pound of solid American pewter – the artisans could faithfully capture many fine details not found on other train replicas. Not only the locomotives, but the tenders as well as the railroad tracks, have been sculpted with meticulous historical accuracy.

To highlight the details still more, an antique finish has been added to each replica. You can almost see the hot steam propel the immense weight, hear the cadenced sound of the exhaust, and smell the steam and coal smoke. Such realistic modeling and large size truly bring the locomotives to life!

A handsome hardwood display stand will accompany each replica at no additional charge

Each replica comes with a beautiful hardwood display stand that further enhances its presence in any setting. Whether placed on a desk, a table or a bookshelf, each locomotive and stand will quickly draw the admiration of friends and family alike.

A superb value, available only from the Danbury Mint

Each replica is a combination of beauty, legend, history and patriotic inspiration –a bargain at almost any price. However, thanks to the economics of the Danbury Mint's direct-to-you distribution, each is available at only $90.

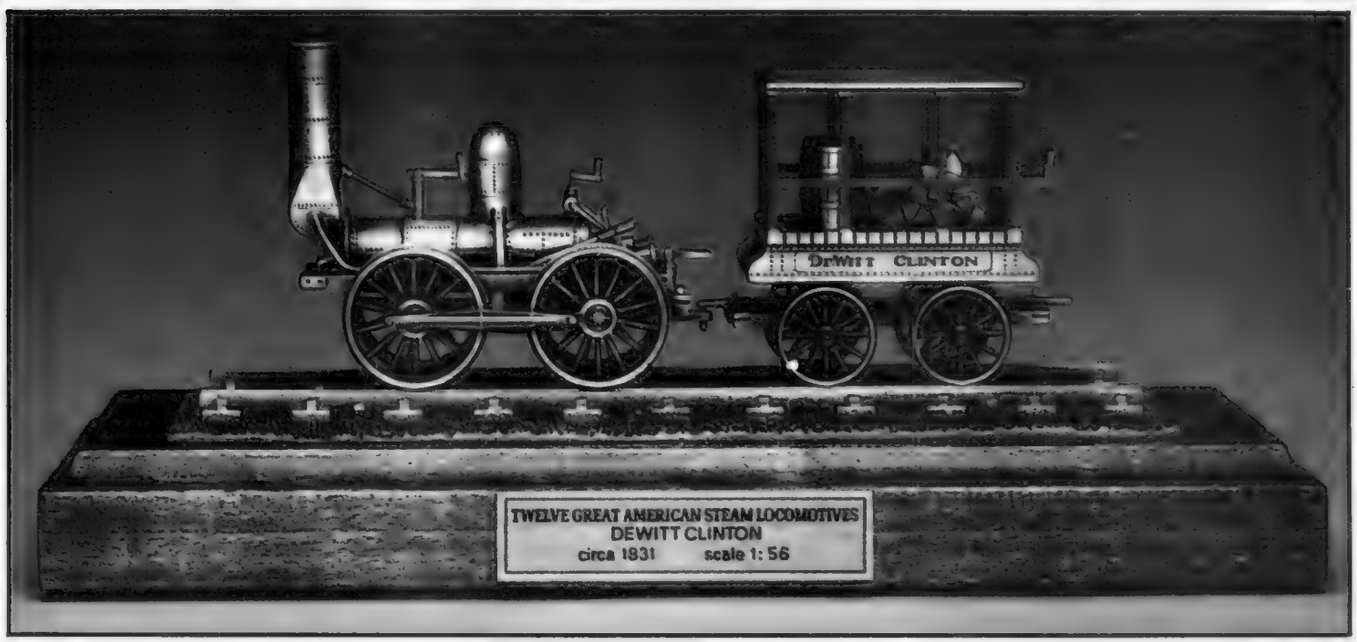
Even if you could find comparable replicas in stores, it is unlikely you could get them for this price. But this unique and exciting collection of twelve great American steam locomotives is not available anywhere else – it can be obtained only from the Danbury Mint.

Convenient subscription plan

To reserve your collection, you need send no money now. You will receive a replica every three months, and you will be billed for each one in three convenient monthly installments of $30 each. You can charge each monthly installment to your VISA or MasterCard account. If you should receive any replica you are not satisfied with, you may return it upon receipt for replacement or refund.

Please act promptly

Now, with this handsome collection, your imagination can ride in the engineer's seat of the great old locomotives. To begin your journey, please return your reservation application today!



Shown smaller than actual size.

RESERVATION APPLICATION

AMERICA'S GREATEST STEAM LOCOMOTIVES

R31

The Danbury Mint
47 Richards Avenue
P.O. Box 5270
Norwalk, Conn. 06857

Please return by July 31, 1985.

Please accept my reservation to *America's Greatest Steam Locomotives*, a collection of twelve pewter scale replicas of the United States' most famous steam locomotives. Each replica will include a locomotive, tender, railroad track and a hardwood display stand.

I need send no money now. The collection will be issued at the rate of one replica every three months. I will pay for each replica as billed in three monthly installments of $30 each. Any replica I am not satisfied with may be returned within thirty days for a replacement or refund, and this subscription may be canceled by either party at any time.

Name _____
PLEASE PRINT CLEARLY

Address _____

City/State/Zip _____

☐ Check here if you want each monthly installment charged to your:
☐ VISA ☐ MasterCard

_____
Credit Card Number Expiration Date

Signature _____

Allow 8 to 12 weeks after payment for initial shipment.

PHOTO BY THE AUTHORS

Cameras in the Campground

by Erwin and Peggy Bauer

For many years, our annual camping trek to Utah or points south was a regular rite of May or early June. The trip was an extremely good strategy. By escaping the unpredictable, blustery spring weather at home in Wyoming, we could luxuriate in the warmth of the canyon country.

Photography in Utah's five national parks is most spectacular when the fresh green foliage of cottonwood trees contrasts with the red slickrock. The heat is not yet oppressive. Springtime in southern Utah is a camera-man's Paradise Found. Very soon we discovered that shooting our camp and camping activities was just as rewarding as filming the awesome scenery surrounding us.

Camping nowadays is easy—a good way to wander anywhere in the West. Camping chores require only a minimum of effort and you have most of the time to enjoy yourself. Modern camping gear (from handy backpack tents to motor vans) is as colorful as it is comfortable and convenient, and therefore photogenic. Many, if not most Western campgrounds are located in picturesque places, especially those in national parks and forests. The combination of bright color and a happy activity with an attractive setting are all any photographer needs to begin exposing film.

If you plan to keep a photo record of your camping trips—or in fact of any Western adventure—it is a good idea to imitate the professionals. Make a written checklist of pictures you should or might shoot and keep referring to it. The following is exactly the kind of checklist we invariably compile before going on a camping assignment. It jogs our memory as we work. You can revise it to fit your own needs:

Photograph campsites visited, especially the most attractive ones, in best relation to the environment. These should clearly show the unique geology or geography of the region. In Utah, for instance, show the sheer canyon walls towering above the campsite.

Take action shots of others pitching the tent or setting up camp. Get any children present to participate in this. Here is a chance to capture real humor (if it's not too late and you're not too tired).

Pictures of cooking are very important, whether you cook over an open fire or on a modern propane stove. Photograph both the cooks and the cookery. Get close-ups of steaks or fish broiling on the grill or whatever is so fragrantly bubbling in the Dutch oven.

Capture views along the highways traveled to reach your destination, particularly of your own camping rig (if unique or self-designed) on the road. You may have to stop and backtrack through a scenic area, but it is well worth the delay. If you have a flat tire to repair, film that too.

Candid pictures are the basis of lifetime memories. Watch for people emerging from their sleeping-bag cocoons in the morning. If in a primitive camping situation, don't miss the shot of someone shaving alfresco beside a stream, with the mirror propped up on a rock.

Shoot any camping chore that you perform differently or more efficiently than others.

Wildlife may be more abundant around some campsites than it is in surrounding areas, probably because some campers do not handle food or scraps meticulously. Campgrounds offer an excellent opportunity to photograph (but not to feed) a variety of camp visitors from jays and juncos to squirrels and raccoons. Most of these creatures are used to people and make very tame subjects.

Besides providing an escape and being economical, camping places the camper closer to other outdoor activities. So carry the camera and take pictures of the fishing, rock hounding, hiking, bird watching, climbing, canoeing, rafting, repairing equipment, or inflating mattresses, anything your fellow campers may be doing.

Some camping trips are not always awash in sunshine. Huddling in a tent during foul weather might be worth a few clever, sardonic comments as well as a photographic remembrance of the ordeal.

Look for a place (probably elevated) from which to shoot a panoramic view of the entire campground, showing as many camps as possible.

Normally there is activity around campfires after dark: singing, storytelling, a naturalist's lecture, coffee brewing, small kids falling asleep, guitar playing. Using only firelight for illumination, you can depict the mood and rewards of camping.

When there is free time, display all the gear and camping equipment used during the adventure by your party. Shoot this from above to show all items better. You then have a valuable record that can be compared to similar pictures taken on later camping trips. We are always amazed at how our equipment has improved over the years.

If there are children on the trip, try to get as many unposed pictures as possible of the youngsters having the time of their lives.

Shoot the whole family poring over maps, charts, or pamphlets, as if to decide where to go camping next. This is a good final picture if you plan to do slide shows for families and friends.

Except for the film, of which we use plenty, camping-trip photography is not expensive. The long telephoto lenses and expensive tripods used in other kinds of Western photography are not necessary. On any 35mm single-lens reflex camera, the best lens around a campsite is a 24mm wide angle (for tent and camper interiors) or the 50mm so-called "normal" lens which is sold with the camera. Owners of the new automatic pocket cameras can shoot lively, bright pictures that almost match the results from the most expensive cameras. A flash is an invaluable accessory on gloomy days, in the deep shade of trees, or inside a tent.

Before driving away on your camping trip, you must decide if you want to shoot color slides to be projected on a screen or prints for an album. For slides, buy film whose name ends in *chrome:* Kodachrome, Ektachrome, Fujichrome. For album prints, select film that ends in *color:* Kodacolor, Ektacolor, Fujicolor. We prefer the slide film simply because the resulting color is brighter and better and prints *can* be made from good, well-exposed transparencies if we want them later on.

Photography in which all campers cooperate can be as rewarding as a hearty breakfast and far more lasting. Cameras and camping simply go together. The rough checklist we have provided here will serve as a guide for any kind of summertime adventure, whether under canvas or not.

Erwin and Peggy Bauer *are authors of a new art book,* Wildlife Adventures with a Camera, *published by Harry N. Abrams, New York. It is available from Travel-Adventure-Outdoors, Box 543, Teton Village, Wyoming 83025 for $45 plus $2 postage and handling.*

GETTER/VARMINT VANISHER
MODEL 500/410 CAMPER
Backpacking, camping, canoeing, fishing or off-road RV excursions, there are times when a survival firearm might come in handy. Here's the piece of accessory gear worth packing.
The MODEL 500/410 CAMPER is a 410 bore slide-action pistol grip shotgun that holds 6 - 2½" shotshells or 5 - 3" shells. In addition to being more powerful than a .22, the shotshell pattern covers a larger target area than the single bullet fired from a pistol or rifle. It can also be loaded with a commercially available 1/5 oz. slug that has the stopping power of a .357 magnum 50 yards downrange! This compact 26" CAMPER comes with a camo carrying case with web sling, tiedown loops and extra shell pouch. Weighing no more than most big bore handguns, it can be carried with fewer restrictions.
Game getter/varmint vanisher — an accessory worth packing.
Contact your local firearms dealer or MOSSBERG for more information and a copy of our free catalog. To receive a catalog and patch enclose $1.25. Send to:
MOSSBERG
Safety and safe firearms handling is every shooter's responsibility. Treat all firearms as if they are loaded. Chamber live rounds only when ready to fire at a known, safe target.
MOSSBERG
Dept. AW
7 Grasso Ave.
North Haven, CT 06473

You know about Nevada's glittering cities, where non-stop casino action and world famous stars light up places like "The Strip," Stateline and Virginia Street.

But there's another Nevada. A wide open place where you can camp beneath towering snow-capped peaks or cast your rod on a glassy desert lake.

DISCOVER NEVADA. WRITE NOW.

"Nevada's Got It" is a new, full color, 44-page recreational guide through Nevada. Territory by territory. Activity by activity.

It'll show you a Nevada you didn't know existed and tell you where and when to fish, camp, ski, hunt, golf, explore and play.

"Nevada's Got It" has it all and it's FREE.

Come and get it.

Send for "Nevada's Got It." Write to:

Nevada's Got It
Nevada Commission on Tourism
P. O. Box 11430, Dept. AW3
Reno, NV 89510

NEVADA
NEVADA'S GOT IT

American West

Editor/President: Thomas W. Pew, Jr.
Managing Editor: Mae Reid-Bills
Assistant Editor: Linda M. Brewer
Editorial Assistant: Elizabeth R. Silva

Art Director/Production:
Edi Gougherty

Publisher/Advertising Director:
Archibald M. Brown, Jr.
Advertising Supervisors:
Lynn Sakellar, Vicki Sue Diaz
Advertising Assistant/Classified:
Carol D. Johnson

General Manager: John W. Reiniger
Circulation Manager: Randall S. Clamons
Circulation Assistant: Elisabeth Roche
Business Manager: Carol A. Ryan
Staff Assistant: Mary E. Laucks

Buffalo Bill Historical Center Director: Peter H. Hassrick

Contributing Editors:
Alvin M. Josephy, Jr.
William H. Hornby

Editorial Board:
Peter E. Palmquist, Stan Steiner, George Schriever, Bernard L. Fontana
Appointed by Western History Association: Harwood P. Hinton (liaison), Lloyd G. Lyman, Elliott West, Dan L. Thrapp, Gary Topping, Paul A. Hutton, Ben H. Procter

AMERICAN WEST is a member of the Audit Bureau of Circulations.

AMERICAN WEST (ISSN 0003-1534) is published in January, March, May, July, September, and November by American West Publishing Company, a wholly owned subsidiary of the Buffalo Bill Memorial Association, a nonprofit educational organization, Mrs. Henry H. R. Coe, chairman. Editorial, circulation, and advertising offices are reached at 3033 N. Campbell Ave., Tucson, Arizona 85719, tel. (602) 881-5850. Newsstand price: $3. Back issues: $5 (includes shipping). Subscriptions: one year $15; two years $25; three years $35 (outside the U.S. $4 per year extra). Subscription correspondence and orders should be sent to Box 1960, Marion, Ohio 43305. However, members of the Western History Association should address communications regarding subscriptions to William D. Rowley, Department of History, University of Nevada, Reno, Nevada 89557. AMERICAN WEST encourages writers to send a query letter and self-addressed, stamped envelope before submitting manuscripts. AMERICAN WEST is printed by R. R. Donnelley & Sons Company in Glasgow, Kentucky. Film preparation and color separations for editorial are by American Color Corporation, Tucson, Arizona; and typesetting by Alltype, Tucson, Arizona. Copyright © 1985 by American West Publishing Company. Trademarks: "American West Trader", "American West Gallery".

PHOTO COURTESY RALPH SHOCK

Gold Rush 1980s Style

"Gold!" The lure of that magic word still lingers. At Jamestown, California, in the heart of the historic Mother Lode country, Ralph Shock conducts classes and field excursions for modern-day gold seekers. Under his guidance, would-be prospectors learn the technique of gold-panning as well as the fundamentals of geology and physics as they apply to placer mining. Despite the interest shown by his students, Shock was not prepared for a sudden gold rush that developed in Jamestown itself. Last fall pay dirt was found in trenches being dug for a sewer on Main Street. Gold flakes and nuggets the size of the end of one's little finger were discovered in the excavated dirt. Word spread fast, and the streets of Jamestown soon filled with fortune seekers, recalling its gold rush of the mid-1800s.

According to Shock, people swarmed into the small town. The few motels filled up. Along the trenches, so many eager hunters worked through the dirt that labor on the sewer came to a stop. Even passing tourists joined the digging. Some people simply shoveled dirt into pickup trucks and took it away. We are told that the contractor on the sewer job (either taking a cue from the frenzied crowd or trying to restore order) finally stopped dumping the dirt along the side of the trench and hauled it away to an unknown location. The excitement subsided eventually, but, Shock says, the digging will undoubtedly continue again this summer.

Death toll grows. In 1907 the city of San Francisco reported officially that 478 people had died from the fearful earthquake and fire of the year before. Since then the figure has been questioned, but until recently the estimate has remained close to 500. Now Gladys Hansen, city archivist at the San Francisco Public Library, and Frank Quinn, former registrar of voters for the city and county, are finding that the toll of the quake was far greater than previously suspected. Digging through old files of the Department of Public Health, the coroner's office, city orphanages, hospitals, and other agencies, Hansen and

NE

"The End of the Trail"

by James Earle Fraser

Shown smaller than actual size of 9" high.

- An outstanding museum quality reproduction of James Earle Fraser's greatest work.
- Individually hand-finished in the great tradition of classic bronze sculpture.
- Available in a single limited edition issue of just 9500 serially numbered sculptures.

"The End of the Trail" is James Earle Fraser's world renowned tribute to the American Indian.

This extraordinarily detailed and faithful reproduction has been created under the direct supervision of Ms. Christine Roussel — former Director of the Reproduction Studio of the Metropolitan Museum of Art.

Each "End of the Trail" sculpture will be meticulously crafted of cold-cast bronze — a remarkable medium that holds even finer detail than traditional hot-cast bronze. Every sculpture will be individually cast from a special blend of powdered resins and bronze, then hand-finished with a classic patina. Each "End of the Trail" will be hallmarked and serially numbered.

To reserve this important Limited Edition Fraser reproduction, simply return the reservation application.

The New England Collectors Society is a subsidiary of Reed & Barton Silversmiths, creators of fine products since 1824.

NE The New England Collectors Society DT-33
237 Saw Mill Road, P.O. Box 464
West Haven, Connecticut 06516

"The End of the Trail"

Please accept my reservation for "The End of the Trail" crafted in cold-cast bronze at $195.00 plus $3.00 for shipping and handling.*

I understand I need send no money now.

Please check one:

☐ When my sculpture is ready for shipment, I will be billed for my deposit of $49.50* and, after shipment, for the balance in three monthly installments of $49.50* each.

[ ] I would like my four equal payments of $49.50* charged to my credit card as follows:

☐ MASTERCARD ☐ VISA ☐ AMERICAN EXPRESS

Credit Card No. _____

Expiration Date _____

Signature _____

All applications are subject to acceptance.

Name _____

Address _____

City _____

State _____ Zip _____

*Connecticut residents add 7.5% for state sales tax.

Telephone TOLL FREE 1-800-824-7888, Operator number 58 for fastest service on charge card orders

You'll look good, too.

At exclusive and historic Bishop's Lodge, the fascinating secluded high-country setting, the glorious sunshine, the crisp clean air, and the carefree mood, make you feel absolutely marvelous. *Mobil Four-star Rated* with first-class amenities, you'll enjoy fine cuisine, a world of activities including pool, sauna, horses, tennis, and nearby golf. Plus, only five minutes from Old Santa Fe and museums, opera, sight-seeing. For a vacation that'll give you that top-of-the-world feeling, simply call 505-983-6377 or write: PO Box 2367J, Santa Fe, NM 87501.

THE BISHOP'S LODGE
SANTA FE, NEW MEXICO

HOBART
WELDING
FOR ARTISTS

Summer 1985
June-August

Announcing a series of two, three and four week courses covering the major welding techniques — uniquely tailored for artists by the Hobart School of Welding Technology. Ranging from introductory to advanced, these courses are specifically designed to teach welding, upgrade welding skills and help with the fabrication of direct metal sculpture. Practical application — Lectures — Critique — Slides — Welding Library — Guest Artists

For detailed information, write to:
Welding for Artists
Hobart School of Welding Technology
Dept. AW, Troy, Ohio 45373
Attn: Aka Pereyma, Program Coordinator
Phone (513) 339-6000

in Denver visit the

Colorado Railroad Museum

THE Center for Preserving Rocky Mountain Rail History

Our Museum, located at the foot of the Rockies just west of Denver, is home for over 60 historic engines and cars. Our Museum building displays an outstanding collection of artifacts taken from our huge archives and inventory For over a quarter century the Colorado Railroad Museum has been THE Center for Preserving Rocky Mountain Rail History, and a *must* visit for railfans travelling through the West. Open almost every day all year — write for information

RAILROAD BOOKS
and Western History

Hundreds of titles in stock — send for our catalog and copy of "free" **Iron Horse News.** We also publish the popular **COLORADO RAIL ANNUAL** series.

No. 16 — Short Line to Cripple Creek spectacular Colorado Springs & Cripple Creek District scenic line to the famed gold camp — detailed text, 175 photos and full color illus., 180 pages, deluxe clothbound. **$24.95 ppd**

Colorado Railroad Museum
DEPT. W BOX 10, GOLDEN COLO. 80402

Lookout

Quinn have been uncovering new names to add to an ever-growing list of earthquake victims.

Instead of the first figure of 478, the two have now identified over 1,500 victims—most of whom, it appears, died from burns. According to Hansen, the identification process has not been easy, as some of the greatest damage occurred in an area where many of the city's poor and transient population (unlikely to have been registered with the city) were living. And the team is still searching. This year, Hansen wrote to historical societies around the country, asking them to run a notice in their newsletters seeking information on people who might have died in the disaster. The response has been surprisingly strong. One letter from the East Coast brought word of an indirect casualty—a man who lost his entire fortune in the earthquake and committed suicide.

Health mines. Played-out gold and uranium mines near Basin, Montana, are now spurring a rush for their apparent power to heal, or at least soothe, the aches and pains of arthritis, asthma, allergies, and numerous other ailments. While mines like the Merry Widow, Sunshine, and Free Enterprise do not advertise cures, word-of-mouth is drawing more and more health-seekers from all around the United States and Canada—from across the oceans, too. Hundreds who have entered the tunnels swear that *something* there makes them feel better, whether it's the exposure to miniscule amounts of radon (a radioactive element emitted from decaying uranium), mineral waters available to drink or soak in, or simply the power of positive thinking.

With no well-documented evidence to back up claims of relief and healing in the mines, health and radiation authorities offer no explanation for the phenomenon. In fact, Anne Grund, owner of the Merry Widow, says, "they pooh-pooh it and call it a hoax," but, she says, she hasn't seen anyone doing research in her mine.

Moose-lovers in Michigan have turned out their pockets to bring Canadian moose from the Algonquin Provincial Park in Ontario to the upper peninsula of Michigan, where the moose population died out during the logging-boom days of the late 1800s. Last January, the task of tranquilizing, airlifting, crating, and trucking twenty-nine near-thousand-pound bulls and cows took just two weeks. The number represents just one less than the total targeted for a planned two-year program. Richard Elden—of the wildlife department of the state's Natural Resources Division—tells us that they now hope that this

BOETTCHER & COMPANY BELIEVES:

A portfolio is not just a collection of stocks.

The distinction is more than semantics. A portfolio is based on specific strategies. It has *balance,* and changes with the market and your own specific objectives.

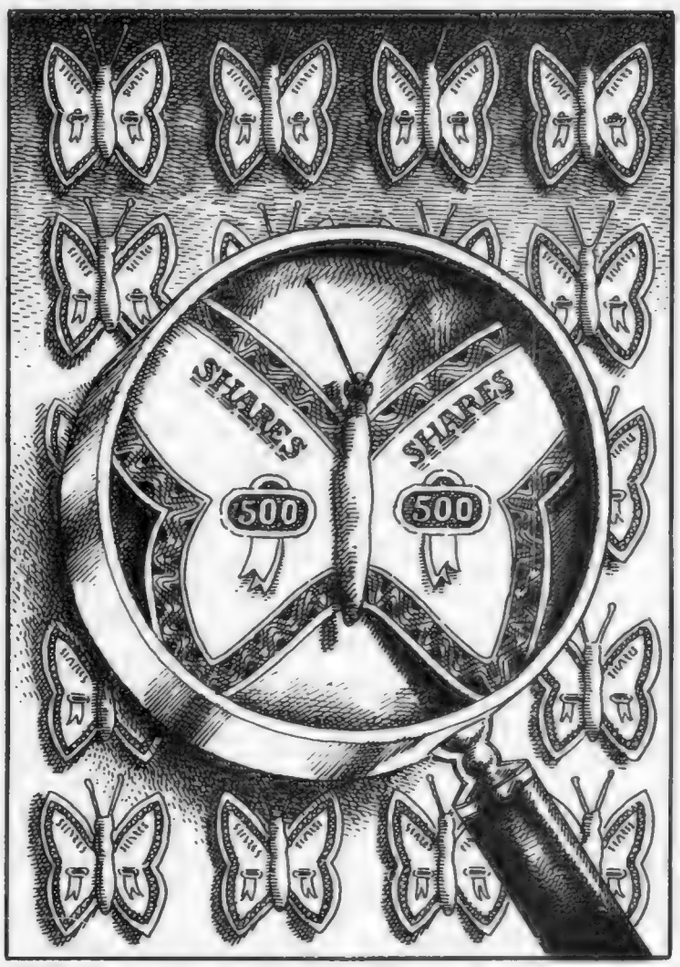
Most important, it should be *reviewed* periodically. Toward that end, Boettcher can offer real help with a free Portfolio Risk Analysis.

This new program uses the portfolio management techniques of large institutional investors to periodically inventory all your holdings, group them, rate them and present you with a clean picture.

We offer it to customers and non-customers alike on a no-charge, no-obligation basis. Confidentially, of course.

Call or write us for the facts.

It's absolutely free. But it might be worth a fortune.



Boettcher & Company
Investment Bankers Since 1910
A Step Ahead Inc.

Please mail to:
Boettcher & Company, Inc., Equity Services
828 Seventeenth Street, Denver, CO 80202
(303) 628-8000.

Tell me more about Boettcher's Portfolio Risk Analysis.

Name _____

Address _____

City _____ State _____ Zip _____

Home Phone _____ Business Phone _____
My Boettcher & Company Account Executive is:

_____

Founded 1910. Headquarters: Denver, CO. Offices throughout the West. Member New York and All Principal Stock Exchanges. SIPC

LOOK TO OKLAHOMA
FOR WESTERN PAPERBACKS

WESTERING MAN
The Life of Joseph Walker
By Bil Gilbert
"Endlessly fascinating...this book is more than a biography." —*Washington Post*
352 pp., 10 maps. Paper. **$9.95**

NOW THAT THE BUFFALO'S GONE
A Study of Today's American Indians
By Alvin M. Josephy, Jr.
"A challenging book about the American Indian today and his struggle for recognition" —*The New York Times*
334 pp., 34 illus. Paper. **$9.95**

Drouth Stricken Area. Alexandre Hogue
Dallas Museum of Art

NATURE'S FORMS / NATURE'S FORCES
The Art of Alexandre Hogue
By Lea Rosson DeLong
Introduction by Matthew Baigell
Profusely illustrated with both color and black-and-white reproductions of Hogue's art, this book is a narrative and visual chronology of his life's works and accomplishments. Co-published with Philbrook Art Center, Tulsa, Oklahoma
221 pp., 16 color plates, 150 illus. 11 × 11
Paper. **$19.95**

COMMUNITY ON THE AMERICAN FRONTIER
Separate But Not Alone
By Robert V. Hine
A thoughtful investigation of the American struggle to build communities amid a dynamic, expanding society. —*Journal of American History*
304 pp., 41 illus. Paper. **$7.95**

THE COWBOY HERO
His Image in American History and Culture
By William W. Savage, Jr.
"The best study yet published on the cowboy in American popular culture." —*Midwest Review*
192 pp., 17 illus. Paper. **$7.95**

THE MODOCS AND THEIR WAR
By Keith A. Murray
"A sound well-written, and quick-moving narrative which will meet the needs of both the professional historian and the general reader." —*California Historical Society Quarterly*
Volume 52 in The Civilization of the American Indian Series
358 pp. 12 illus. Paper. **$8.95**

PRIVATE ELISHA STOCKWELL, JR., SEES THE CIVIL WAR
By Elisha Stockwell, Jr.
Edited by Byron R. Abernethy
"A first rate American literary primitive...Distinguished by a naive realism of almost epic quality." —*New York Times*
224 pp., 9 illus. Paper. **$6.95**
Please write for free catalog

University of Oklahoma Press
1005 Asp Avenue, Norman, Oklahoma 73019

Lookout

small group of moose will repopulate an area grown back to an ideal habitat for these large cud-chewing animals.

Although a previous transplant attempt in the thirties "didn't take," Elden says he expects this one to work better, observing that the decline in that moose population coincided with a period of meat rationing during World War II.

DRAWN FOR AMERICAN WEST BY ELIZABETH TANG HERRICK

And what will the moose do for the state of Michigan? The Natural Resources Division feels that, in addition to filling their old ecological niche, the moose will enhance the experience of the wilderness for tourists. And someday, if the project is a success, moose-hunting may come back in season. Of a total cost of $60,000 for this project, private citizens and organizations donated over $30,000. Twenty-five thousand dollars of those private donations came from the Safari Club International, a group that has a vested interest in not letting game animals die out.

Cowboy Poets. The national arm of culture reached into buckaroo country recently when the National Endowment for the Arts, the Western States Art Foundation, and other organizations helped with funds to bring together dozens of cowboy poets. In Elko, Nevada, on a midwinter weekend the convention center resonated with the voices of over one hundred rangeland poets reciting scores of original poems as well as a good helping of traditional fare like "After the Roundup" by D.H. White. Some invited, some just drawn by word of mouth, these wranglers threw a wrench into the macho cowboy stereotype, reading verse on subjects ranging from sentimental love to bitter bureaucratic fumblings and range experiences.

The gathering was sponsored by the Institute of the American West and was the result of years of research by folklorists and historians from organizations in several states. Carol Edison of the Utah Arts Council's Folklife Center called it a great success. She suggests that this event—a first meeting of cowboy poets normally dispersed throughout the West—gave the group a sense of community that they had previously lacked. "We didn't know there were so many other poets," she was repeatedly told by young and old alike. The gathering has also helped to document a little-recognized aspect of American folk art. Organizers are now selecting works for an anthology of new and old cowboy poems and poet biographies that they expect to be published this coming summer.

Refuse or War Memorial? As the fortieth anniversary of V-J Day approaches (August 10, 1985), attention is focused on the westernmost islands of the Aleutian chain in Alaska. There, in 1943, allied forces fought to win back from the Japanese the occupied islands of Kiska, Agattu, and Attu. Soldiers in the Aleutian Islands campaign called the gasoline drums sent with their supplies "one-trippers" because the lightweight metal containers were intended for a one-way trip only. To this day, thousands of those "no deposit, no return" drums litter the war-scarred islands like soda-pop cans strewn about by careless picnickers. Hundreds of Quonset huts and a plethora of war supplies also came to support the men who regained those islands, and much of what arrived still remains as refuse, lying broken and rusting—sore evidence of what has been called "The Forgotten War."

Kiska, where the Japanese made their camp, and Attu, where the main battle was fought, are largely barren and, except for a small Coast Guard detachment on Attu, devoid of human population. They are now on a list of military sites marked for national historic landmark status by the National Park Service. But another sort of battle is being waged over the fate of the broken-down machine guns, wrecked aircraft, Quonset huts, and other debris in the Aleutians. While the U.S. Army Corps of Engineers is being sent to clean up the sites and erase all evidence of the struggle, some people—including retired Brigadier General Benjamin Talley and leaders of the Aleutian/Pribilof Island Association—feel that most of the clean-up is unnecessary. They suggest that the government dollars could be better spent elsewhere, and that removing these artifacts of war would be eliminating the most meaningful monument to the servicemen who fought there and the most graphic reminders of the war.

Honkers beware. Public nose-blowing is under attack by a Missouri state legislator.

Our products enhance the world's most sophisticated optical instrument.

Following a tradition of excellence begun in 1853, Bushnell optical systems are recognized and respected for their high quality by sportsmen and hobbyists around the world.

Bushnell has earned that respect by setting the most exacting standards of design and manufacture for telescopes, binoculars, shooting scopes, and sports glasses: standards that reflect Bushnell's respect for your eyes.

When you consider the purchase of quality optical products, we invite you to compare Bushnell with any other brand. We know that the evidence of your own eyes is our most powerful endorsement.

BUSHNELL
DIVISION OF **BAUSCH & LOMB**
2828 E. Foothill Blvd., Pasadena CA 91107, U.S.A.

Saba's

1985 Western Wear Catalogue

Publication date: August 31, 1985

A beautiful full color catalogue of top quality western wear. Send $1. for shipping/handling and this coupon to:

SABA'S WESTERN STORES
Dept. W, 7254 E. Main, Scottsdale, Az. 85251

NAME

ADDRESS

CITY STATE

ZIP PHONE

INDIAN-ARTIFACT MAGAZINE

For Indian & Artifact Enthusiasts

Articles, pictures, historical & educational information. Everything about collecting, buying, finding & enjoying. A valuable reference & resource

1 yr. - 4 issues - $15.00

Send payment to:
INDIAN-ARTIFACT MAGAZINE
Dept. AW
RD#1, Box 240
Turbotville, PA 17772

Money back guarantee on unused copies
Canada add $4.00

AIR-LOCK-LOG HOMES OF AFFORDABLE QUALITY

AIR-LOCK-LOGS are bored hollow for complete seasoning, better insulation and natural wiring conduit.
AIR-LOCK-LOG COMPANY has been in business for 60 years so you can depend on our quality of service.
SEND $5.00 for our book LOG CABINS. It includes 55 standard plans and perspectives, plus photos and information on planning and building a quality hollow log home.
VISIT our office and mill. FREE brochures also available.

AIR-LOCK COMPANY, INC.
P.O. Box 2506, Dept. AW, Las Vegas, NM 87701
(505) 425-8888

The CHOICE is YOURS...do-it-yourself or contractor...we'll help you all the way. We love to work with custom designs...solar plans available.
VISA and Mastercard accepted.

Lookout

After having had many pleasant meals spoiled, Representative Fred Williams has introduced legislation to prohibit what he feels is the unsanitary and gross habit of loud nose-blowing in restaurants. He says he is not bothered by people who quietly take care of a little sniffle; he's just after the "real loud honkers who have no regard" for other restaurant patrons. Missouri House Bill #271 has been referred to the Committee of Public Health

DRAWN FOR AMERICAN WEST BY ELIZABETH TANG HERRICK

and Safety. Representative Williams says he has had enormous response to his bill—not just in Missouri, but from all over the United States, Canada, and England—and the letters, he says, are running two or three to one in favor of the proposal. A typical response has been ". . . so glad you've put this in. It should have been done long ago."

Avoirdupois. In Hope, Arkansas, watermelon is big business; very big, indeed—especially for Ivan Bright. A local farmer who has been growing watermelons commercially for about fifty years, Bright has spent the last dozen years or so nurturing green, red-meated, juicy gourds weighing one to two hundred pounds. These oversize melons are used for special occasions—homecomings, reunions, and even parties on the White House lawn. But recently the fun and challenge for Ivan Bright has been to regain the world title he won in 1980 for a 200-pounder that topped a 1935 record of 195 pounds. Pruning and pampering last summer, Bright worked for another record to add to the Guinness book, but when the gourds were weighed in at harvest time, his biggest fruit didn't quite tip the scales to two hundred. A rainy August in southwest Arkansas had thwarted his efforts (oversaturated melons will burst). But Bright hasn't lost hope. He's going to try again this year to break the current 255-pound high.

BUFFALO BILL HISTORICAL CENTER CODY, WYOMING PUBLISHES AMERICAN WEST

The Buffalo Bill Historical Center, a nonprofit, educational institution is truly the CENTER for Western America's colorful history. Dedicated to the preservation and exhibition of rare and diverse collections, the Historical Center is a major complex offering unequalled opportunity to gather insight and appreciation for the many facets of our Western heritage. Four complete museums and a total of over 150,000 square feet of exhibit space have established the Historical Center as the major guardian of over a century of Western memorabilia, artifacts, and works of art.

Join the PATRON'S ASSOCIATION

A vital membership program for those recognizing the need to preserve, exhibit, and promote knowledge of our Western American legacy. Your membership makes it possible, and we invite you to join us in our goal.

Categories are available to fit your interest: Individual—$35; Family—$60; Centennial & Small Business—$100; Sponsor—$250; Sustaining—$500; Benefactor & Corporate—$1,000; Pahaska League—$2,000.

BENEFITS OF MEMBERSHIP:

(1) Year's subscription to AMERICAN WEST magazine; (2) Free admission to the BUFFALO BILL HISTORICAL CENTER; (3) Invitations to previews and receptions; (4) Quarterly copies of BBHC Newsletter; (5) Discounts in the Historical Center's Gift Shops; (6) Discounts on fees for Historical Center seminars; (7) Research library privileges; (8) Winchester telephone inquiry privileges; (9) Tax deductible as provided by law.

Buffalo Bill Historical Center
P.O. Box 1000, Cody, Wyoming 82414

Discover the high country.

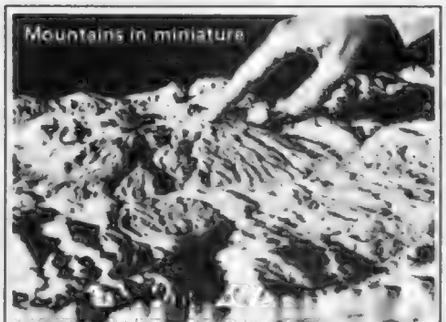
Visit Mountainland and you can find yourself on a vintage turn of the century railroad. Or in Park City, a hundred year old mining town turned into an exciting ski and summer resort. And always in the middle of staggeringly beautiful alpine scenery. If you'd like to know more about us, write Mountainland at 160 E. Center St., Provo, Utah 84601

Utah's Mountainland

Plains Indian Art & Artifacts.

Free Catalog shows painted shields, mounted trophy buffalo skulls, war arrows, peace pipes, chokers, breast plates, war clubs, tomahawks, lances, horse dance sticks, star quilts and more. Exclusive source. Handmade with traditional tools and authentic materials. Many have interesting stories to tell from Cheyenne, Sioux and Blackfoot heritage. Collector's items, unique gifts and stunning decorations.

Write or call:
PRAIRIE EDGE P.O. Box 8303 Department M
Rapid City, South Dakota 57701 Area Code (605) 341-3620



RAISED RELIEF MAPS

SHOW A LOT MORE . . . of the terrain of the eastern/western regions of the U. S. Mainland and Hawaii.

See the Adirondacks, Appalachians, Rockies, Sierras and other great outdoor areas in 3-D. Printed in 6 colors, these 22"x33" maps each represent approximately 70x110 miles and provide accurate visual information about:

Wooded areas — Mountains, hills and valleys — Streams, lakes and reservoirs — Elevation contours — Political boundaries — Urban areas and roads — Landmarks.

Reference for: Fishing — hunting — skiing — camping — backpacking — flying.

Send coupon for free index map/order form.

HUBBARD P. O. Box 104 Northbrook, IL 60062

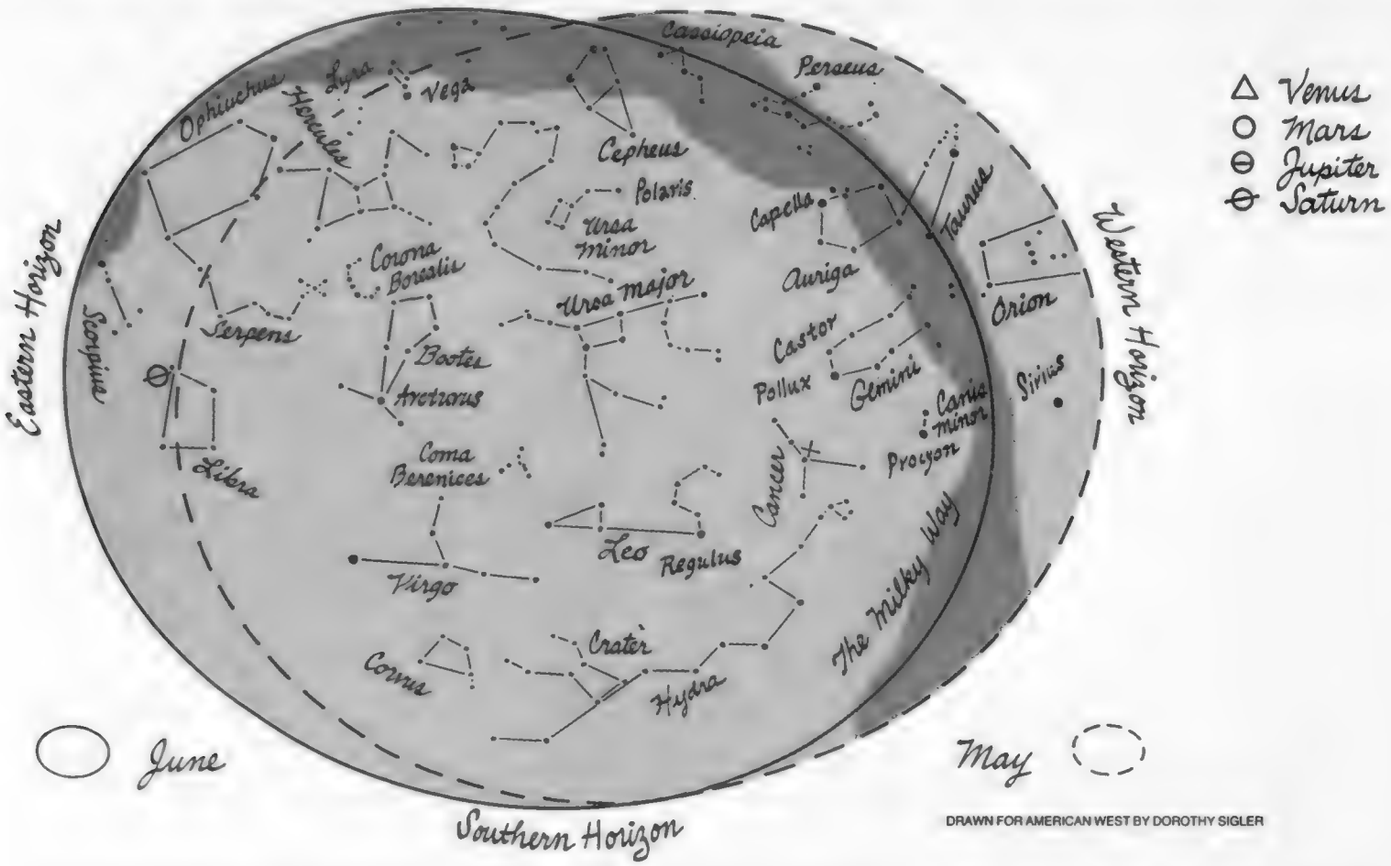
Please send FREE descriptive information.

Name_____

Address _____

City_____ State_____ Zip_____

(Dealer inquiries invited) AW



DRAWN FOR AMERICAN WEST BY DOROTHY SIGLER

Preparing for Summer Skies

by O. Richard Norton

With this article, we complete our first scrutiny of the sky that began in the July/August 1984 issue of AMERICAN WEST. If you have been faithfully following my descriptions of the sky through the months, you should by now have learned to recognize at least the more conspicuous constellations and learned the names and locations of the brighter stars. Don't worry about the less conspicuous constellations; they will become apparent to you in time.

In this issue, we will cover the remaining spring constellations that blend smoothly into the summer skies. In the March/April issue, we left the spring constellations with Virgo and Corvus rising in the east and Bootes, with its bright star *Arcturus* punctuating the northeastern horizon, announcing that spring had arrived. Remember, for every month that passes, the stars rise two hours earlier. In other words, the sky shifts westward 30° every month. That's why the star maps we have been using are actually two maps superimposed over each other showing this westward progression of the constellations. Notice that now the question mark of Leo, with its bright star *Regulus*, is high overhead by 8:00 P.M., followed closely by Bootes's bright orange star, *Arcturus*. This is also the time when the Big Dipper stars (Ursa Major) are prominently placed just to the north of the zenith. An easy constellation to find because of its obvious semicircular shape and close proximity to Bootes is Corona Borealis, the Northern Crown. Far beyond this curve of stars lies the Corona Borealis cluster of galaxies many millions of light years away. As I mentioned in the last issue, spring is an excellent time to view the galaxies with a small telescope. Notice that the Milky Way, the plane of our own disk-shaped galaxy, is far to the north and west so that it doesn't obscure our vision of deep space. Virgo, Corona Berenices, Corona Borealis, Hercules, and Ursa Major all have great clusters of galaxies associated with them.

Before we again plunge headlong into the bright summer sky, we need to arm ourselves with a few more observational tools that will go far to enhance our enjoyment of the night sky. Let's look at star colors. Although human eyes possess color receptors that enable us to see color, these receptors, called *cones*, are not very sensitive to low intensity light. Most stars are too faint for our color receptors to perceive their colors. Instead, we use light-sensitive receptors called *rods* to see their light but not their color. But if you will locate the bright stars *Betelgeuse* (visible only in early May), *Regulus*, *Arcturus*, *Capella* (low in the northwest in May), *Vega* (low in the northeast in May), and *Spica*, you should be able to see their colors without optical aid. It would be helpful, though, if you used binoculars or a small telescope that intensifies the stars' light so that colors are much more obvious to the eye.

What do the colors mean? They are a visible expression of the surface temperatures of the stars. With no other instrument than your eyes and binoculars, you can estimate the temperatures of these distant suns. Red stars (they actually appear more orange than red) are the coolest stars with surface temperatures of about 5,000°F. Orange/yellow stars come next with temperatures of 8,000°F. Yellow stars like our own sun have temperatures of 10,000°F. Blue stars are quite a bit hotter, about 25,000°F. The blue/white stars are hottest of all at temperatures up to 50,000°F. Here is a list of the more prominent bright stars with their colors and temperatures.

Star	Constellation	Color	Approx. Temp.
Betelgeuse	(Orion)	Red	5,340°F
Antares	(Scorpius)	Red	5,700°F
Aldebaran	(Taurus)	Orange/Red	7,140°F
Arcturus	(Bootes)	Orange	7,640°F
Pollux	(Gemini)	Orange	8,180°F
Sun		Yellow	9,980°F
Capella	(Auriga)	Yellow	10,740°F
Procyon	(Canis Minor)	Yellow/White	11,780°F
Altair	(Aquila)	Blue	13,940°F
Fomalhaut	(Pisces Austrinus)	Blue	16,140°F
Sirius	(Canis Major)	Blue	17,540°F
Vega	(Lyra)	Blue	19,340°F
Rigel	(Orion)	Blue/White	22,940°F
Spica	(Virgo)	Blue/White	42,740°F

I need to caution you here. Although the color of an object can be precisely measured with sensitive instruments, color remains a rather subjective quality that seems to vary with each observer. What may seem orange to you may be somewhat yellowish to another observer. Regardless, your color estimate with the aid of this list will enable you actually to estimate the temperatures of stars trillions of miles away! Now what would Galileo have thought of that?

Another observational tool can be used to help you find faint objects with your eyes alone as well as with binoculars. Remember that there are *two* light receptors in the retina of the eye: the color receptors called cones and the light receptors called rods. The cones are located immediately behind the lens on the retina in a small area called the *fovea centralis*. Outside this small area, the cones decrease in number and the rods began to increase in number dramatically. To see the color of an object, you must look straight at it. Since the rods are more sensitive to light (but not color) than the cones, a faint object (like the Andromeda galaxy) seen out of the corner of your eye seems brighter than when viewed straight on. With binoculars you can actually see more stars by averting your vision to the edge of the viewing field while concentrating your attention on the center of the binocular field of view. This is called *averted vision* and is a technique well known to sky-watchers. Try it. It works.

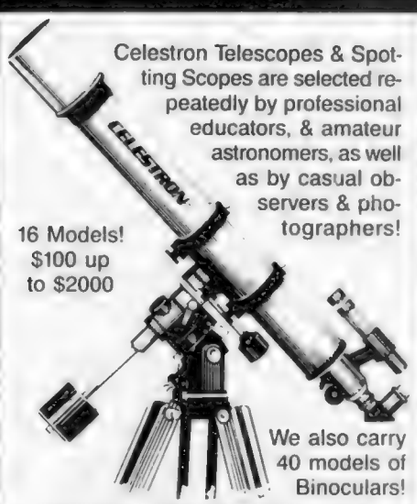
I have been preparing you for an expanded view of the constellations and the treasures found in them by using binoculars. In the July/August 1985 issue of AMERICAN WEST, I will concentrate on binoculars and their use in sky-watching. And just in time, too. Halley's Comet is just around the corner.

Where are the Planets?

Saturn is the only planet visible in the early evening hours in May and June. It is located in Libra. On May 15, Saturn is exactly opposite the setting sun and rises as the sun sets. By the end of June, Saturn will be well up in the east by 8:00 P.M. and will set about two hours before dawn. A small telescope with about 50X magnification will enable you to see the planet's beautiful rings.

O. Richard Norton *is director of the Flandrau Planetarium on the campus of the University of Arizona.*

Telescopes!



Celestron Telescopes & Spotting Scopes are selected repeatedly by professional educators, & amateur astronomers, as well as by casual observers & photographers!

16 Models! $100 up to $2000

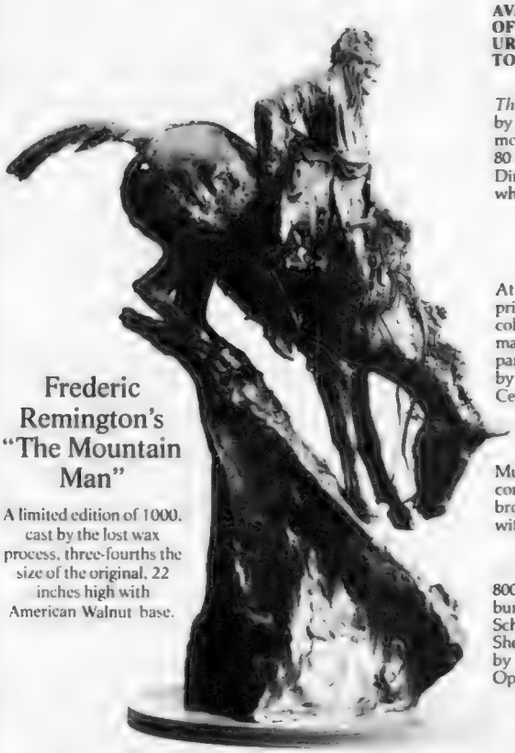
We also carry 40 models of Binoculars!

Call Toll-Free!
1-800-621-2248
For Price Quote & Catalog

SHUTAN
camera & video
312 West Randolph St.
Chicago • Illinois • 60606

An Outstanding Opportunity For Collectors of Western Art

THE FIFTH IN A SERIES OF LIMITED EDITION BRONZE REPLICAS



Frederic Remington's "The Mountain Man"

A limited edition of 1000, cast by the lost wax process, three-fourths the size of the original, 22 inches high with American Walnut base.

AVAILABILITY: THE LIMITED EDITION OF 1,000 IS APPROACHING CLOSEOUT. WE URGE YOU TO PLACE YOUR ORDER NOW TO GUARANTEE DELIVERY.

The Mountain Man was originally completed by Remington in 1903. Our replica edition is modeled from number 13 of the approximately 80 originals, and has been approved by the Director of the Buffalo Bill Historical Center, where the original bronze is on display.

A REMARKABLE VALUE IN TODAY'S INFLATED ART MARKET

At a time when bronzes of lesser quality are priced from $3,000 up, this edition is offered to collectors at $1,875. Each bronze is foundry marked, numbered and dated, and is accompanied by a Certificate of Ownership signed by the Director of the Buffalo Bill Historical Center.

GUARANTEED REPURCHASE AGREEMENT

Museum Collections by Schulenburg Inc. unconditionally guarantees to repurchase your bronze at the issue price of $1,875 any time within one year of your purchase.

TO ORDER, CALL TOLL FREE . . .

800-243-6229, or write: Frederick H. Schulenburg, Director, Museum Collections by Schulenburg Inc., Dept. AW, 155 Myrtle St., Shelton CT 06484 for brochure. You may pay by check, money order or major credit card. Optional five month payment plan available.

museum collections
by Schulenburg, Inc.

PHOTO BY LIZ HYMANS

A Magical Underground World in the Sierra Foothills

by Phyllis Zauner

The caves had been there for untold time, of course, when the forty-niners "discovered" them. The great gold rush of 1849 brought gold-seekers to Calaveras County, California, where the men puttered about in the gravelly streams around some diggings called McKinney's Humbug, taking out gold in fair quantity.

One fall afternoon in 1850, some of the miners were engaged in the usual Sunday recreation of target practice. When the target seemed too close, one of the men, a Captain Taylor, climbed the limestone bank to move it farther away. From his new vantage, he spotted a hole among the boulders. Entering the small opening, he and his companions found the extensive caverns beyond.

What they saw there astounded them. The ceiling and sides were covered with beautiful formations—"some, pendant from the ceiling, glittered in the lamplight like thousands of diamonds."

The caves were immediately opened to the public and soon became a tourist attraction of the day. A hotel was built at a cost of $5,000—a substantial sum for that time—and the name McKinney's Humbug was changed to Cave City.

A lively town developed around the wondrous caves and the tourists who came to see them. By 1885, fully four hundred miners called Cave City their home. It offered a school, saloons, a French restaurant, blacksmith shops, and stores. A new hotel went up when the old one burned down—much more grand, two stories high, with parlors, separate dining room, and a dance hall where festive parties were held every week. For several years visitors swarmed in to explore and marvel over the many chambers of the caves.

In one of several new chambers discovered in the cave complex, a great many skeletons were unearthed. This "Cave of the Catacombs" posed a mystery to investigators, as they could find no shred of cloth anywhere to indicate that the bodies had ever been clothed. Not until 1881 was an apparent answer found in the story of an old Indian woman who had been educated as a young girl at the Mission in San Jose. Her chilling explanation was that the cave had been used as an execution chamber. The *Calaveras Weekly Citizen* of August 20, 1881, carried her story:

> After I had been at the Mission about a year my father and mother came to see me. They told me that my oldest sister had been put in the cave for leaving her husband. I . . . told Father Pedro all about the cave; how that when a woman survived [her husband], she and her children were placed in the cave to starve to death with the prisoners. The Father sent up to see about it, and found several women and children in the cave, and among them my

sister. Some had just died, others were dying, and some were eating the raw flesh off the dead bodies. I went with the priests to show them where the cave was, for none of the other Indians would tell. I was very young at the time, but I never got over it. When the Fathers moved the rock away from the door, it was terrible. After a long time the poor creatures were brought out, but the most of them died and the others became raving maniacs. The Fathers buried the dead and sealed the cave up. After we returned they sent out among the Indians warning them against using the cave again, and I don't think they ever did.

In 1885 the caves were used as a meeting place for a secret, nativist society, the Know-Nothings.

In its heyday, Cave City was a flourishing mining camp, cosmopolitan in nature. By 1860, the mines were exhausted, and visitors to the area mentioned empty buildings and an air of abandonment. By 1883 a visitor mentions only the hotel, a saloon, and a haystack.

One spellbound visitor who came after Cave City's halcyon days was naturalist John Muir, who wrote about the chambers in *The Mountains of California* (1894).

Lighting our candles, which seemed to have no illuminating power in the thick darkness, we groped our way onward as best we could along narrow lanes and alleys, from chamber to chamber, around rustic columns and heaps of fallen rocks, stopping to rest now and then in particularly beautiful places—fairy alcoves furnished with admirable variety of shelves and tables, and round bossy stools covered with sparkling crystals. . . .Then we would come to handsome marble stairways conducting right and left into upper chambers ranged above one another three or four stories high, floors, ceilings, and walls, lavishly decorated with innumerable crystalline forms.

Enchanted, Muir and his guide came upon a deep, clear lakelet in one of the chambers. Of this he wrote that his imagination was more deeply stirred by the lake's profound stillness than by the beauty of glacial lakes rimmed with snow or meadows.

Today, Cave City is no city at all. It is a sort of nowheresville at the end of a dusty backcountry road. Recently it has become the marshalling point for a large number of spelunkers and cave enthusiasts. And once again, people gaze awestruck at the wonders of a world that looks like a Jules Verne concoction.

Steve Fairchild, owner of this natural wonder, has cleaned out the mud of the years, installed stairways and lights, and has explored far beyond the crystal world witnessed by John Muir, to find new caves, new chambers. Some are accessible only to spelunkers, who spurn well-lighted caves, getting their kicks from slithering through narrow openings and muddy passages for a reward of underground splendor few have seen. But for those not of a stoop-and-crawl persuasion, there is a spectacular walking tour through Mammoth Cave. It is a crystal palace where icicle-white stalactites shimmer, walls become thick marble draperies with twisted spirals of calcite, and thousands of delicately pointed, fragile formations trim the ceiling. The caves are truly an enchanted realm.

The Cave City caverns are reached by taking California Highway 49 to San Andreas. Then take the Mountain Ranch Road out of San Andreas to Mountain Ranch. From there, follow the Cave City road for three miles. For information write Cave City, Box 78, Vallecito, California, 95251, or call (209) 736-2708.

Phyllis Zauner *is a freelance writer based in Sacramento, California.*

TRUE
BEAR STORIES

A special reprinting of a classic by Joaquin Miller. A rollicking 19th-century collection of actual encounters with bears. Bound in full leather. Woodblock illustrations by Vincent Perez, foreword by William Everson. Edition is 250 copies only at $285 each.
Write for free prospectus.

THE YOLLA BOLLY PRESS
Carolyn and James Robertson, Props.
Main Street, Covelo, CA 95428

THE BRONZE SCULPTURE OF
REMINGTON
"MOUNTAIN MAN"

Sculpted in 1903 to honor in Remington's words, "the most revered western type—the fur trapper." Cast in the lost wax method, for exceptional detail and hand finished by skilled craftsmen. ■ This signed, limited reproduction edition of only 100 is mounted on a solid marble base with brass nameplate.

$1075
includes tax & shipping

CALL NOW
(714) 667-7494

You may pay by check, money order or VISA/MC
15-day money back guarantee

Height—28"

Buy direct from foundry!
S&W Bronze Foundry

A RAGE FOR FALCONS

STEPHEN BODIO

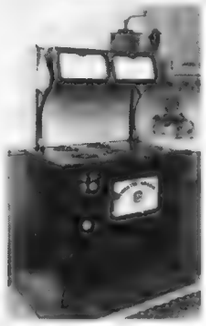
"A Rage for Falcons is like being cast from the fist and allowed to soar."
—Tom McIntyre

Steve Bodio writes with great energy. His book is an exciting, in-depth description of the world of falconry that communicates the joys of working with these magnificent, wild birds. **A Rage for Falcons** is a book for anyone who has stared in wonder at a great bird in flight.

144 pages, illustrated, 5½ x 8¼
$16.50 plus $1.50 postage and handling. Orders shipped directly from publisher, Nick Lyons Books.

American West Trader
P.O. Box 31325, Tucson, AZ 85751

ELECTRIC COUNTRY CHARM RANGE



. . . **CAST IRON** reproduction from original patterns. Combined with the Early American charm of this antique is the convenience of automatic oven and burner controls, and easy-care porcelain top. Coffee mill houses clock, oven timer and minute minder. Fits modern range space. Prices start at $1085.00 plus freight charges.

Send 25¢ for your *"Country Charm"* Appliance Folder and Gift Catalog.

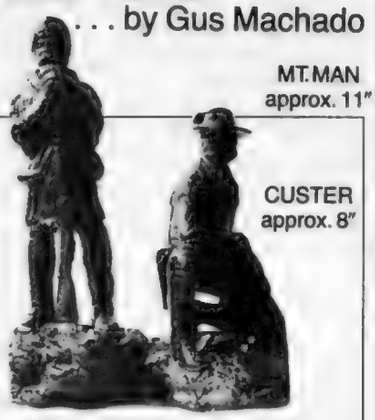
BUILT-IN MICROWAVES AND WALL OVENS

Quality backed by over 45 years of Skilled Craftsmanship.

Made and Sold Only by
THE HOUSE OF WEBSTER
"Old Fashioned Gifts."
BOX AW 386 ROGERS, AR 72757

COLLECTOR'S WESTERN SCULPTURE

. . . by Gus Machado



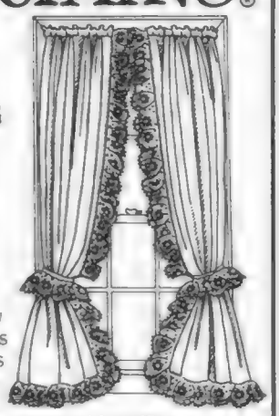
See the strength and determination of the Western Epic through these carefully crafted pioneer images. Machado's use of stone ground foundry material creates the look of aged bronze. Makes an impressive display.

$35.00 each plus $3.00 each for shipping & handling. Calif. residents add sales tax. VISA & MASTERCARD accepted.

Order exclusively through:
THE ROGERS COMPANY
270 Newhall St., San Francisco, CA 94124 (415) 550-7655

COUNTRY CURTAINS®

FREE COLOR CATALOG

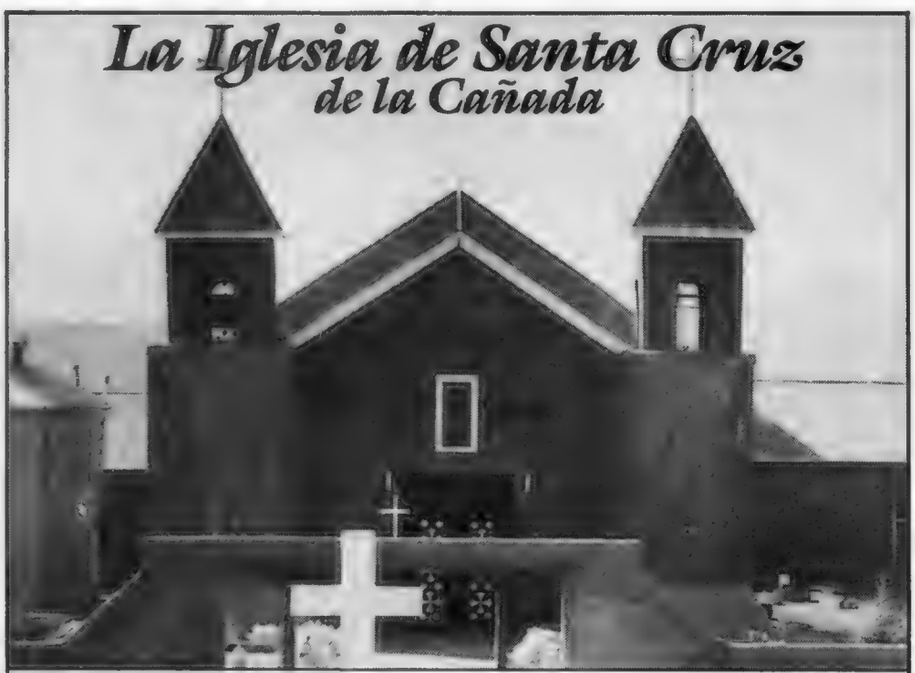


Country Curtains are a tradition . . . years of old-fashioned quality and conscientious service. Curtains in cotton muslin or carefree permanent press, some with ruffles, others with fringe or lace trim. Also tab curtains, bed ensembles, lined and unlined Waverly curtains, charming pillows and dolls, wooden curtain rods . . . many wonderful items for your home. Free color catalog. Please call 413-243-1805 or write us. **Satisfaction guaranteed.**

☐ PLEASE SEND FREE CATALOG
Name
Address
City
State Zip

COUNTRY CURTAINS
At The Red Lion Inn
Dept 1415 , Stockbridge, Mass. 01262

La Iglesia de Santa Cruz de la Cañada



Each Sunday, worshippers in this beautiful church carry on a tradition that dates back 252 years. And, as Fray Miguel Menchero said in 1744, ". . . it was built without its costing his Majesty half a *real* for its materials or building." Come see what could be built for less than half a *real* in 1733. It's more of the magic of the Española Valley.

ESPAÑOLA
VALLEY CHAMBER OF COMMERCE
NEW MEXICO USA

Dept. AW, 417 Big Rock Ctr., Espanola, New Mexico 87532 505-753-2831

Letters to the Editor

Queen's Visit

Your article "Queen Elizabeth Visits Wyoming" by Tad Bartimus was great. I have always been an admirer of Queen Elizabeth and all of her family.

For Queen Elizabeth really to enjoy her visit with "down-to-earth" people, to see her smile, embracing a friend, looking at pumpkins or patting a dog on the head—doing just what *she* wished to do—I can imagine what memories she took back to Great Britain, of her visit.

Mable Hamblen
Farmer City, Illinois

Now I'm going to indulge in a little nit-picking with the caption that goes along with the picture on page 33 of the March/April issue. It shows Queen Elizabeth with a couple of dogs identified as Golden Labradors. As an amateur retriever trainer, I can assure you there is no such animal as a Golden Labrador. If you wish to identify the color of a light-colored Lab, it is called a yellow Lab. (The other two colors are black and chocolate.) There is another breed of retrievers called golden retrievers. Calling the breeds by correct names helps differentiate between them. Thanks for hearing me out.

Tom Clancy
Hickory Hills, Illinois

Wall Drug

I thoroughly enjoyed your interesting article on Wall Drug in the March/April issue. It brought back a lot of memories for me. During the 50s my father Jim Watkins sheared sheep in the Dakotas, Montana, and Wyoming with a sheep-shearing crew.

Only someone who has traveled through the badlands without air-conditioning, pulling a trailer house with his wife and four, hot, tired, and thirsty little children can fully appreciate an oasis like Wall Drug. I was the oldest child at age seven during our first year out West. On one trip my dad bought a Wall Drug sign and posted it on Highway 36 outside our hometown of Stewartsville, Missouri.

Wall Drug will always remain a special place in my heart for it symbolizes to me the true spirit of Western hospitality.

Marlene Bottorff
Cameron, Missouri

Olympic Hopeful?

I don't understand the references in Douglas Chadwick's article "Montana Mountain Men" (March/April) to the "upcoming winter Olympics." By July 1984 when Kari Swenson was attacked, the winter Olympics were over. It is my understanding she *was* a member of the team.

In any Olympic year, the winter Olympics are held first, followed by the summer games.

Karin G. Rae
Moose, Wyoming

Author Chadwick was, indeed, speaking about "upcoming winter Olympics"—1988 and later. Our understanding is that Kari Swenson has not yet been a member of any Olympic team. The Olympics do not offer competition for women in the biathlon, but Ms. Swenson was on a U.S. team that competed internationally in the biathlon.—Ed.

The Chief and the Prince

I am a new subscriber to AMERICAN WEST and want to share with you my mother's recollections after she saw the picture of Chief Plenty Coups in the January/February issue, page 55.

Mother was born and raised in Park County, Wyoming, on the South Fork of the Shoshone River and attended the 1913 county fair held in Cody (the same one attended by Prince Albert of Monaco and Chief Plenty Coups). A girl of ten years at the time, she and her older brother rode their horses side by side in the fair's opening parade.

On another day mother and her two-year-old brother had gone with their mother to the general store known as the Cody Trading Center. While they shopped with other fair-goers, a group of Crow Indians entered. One of the young women had a small girl about three years old. As everyone watched, the child left her mother's side and ran to my mother's little brother and hugged and kissed him.

The raven-haired girl wore a dress adorned with closely spaced elk teeth and was the little Indian Princess, Chief Plenty Coups's daughter.

Catherine Batey
Cedar Rapids, Iowa

I was disappointed to see the article "The Prince Who Would Be Mayor" in the January/

RAPIDS TRANSIT.

Unmatched Whitewater Rafting Expeditions.

Get into the West's best river trips, from Grand Canyon to the Salmon, from Cataract to Alaska.

Free River Trip Planner
1-800-453-7450

Western River Expeditions
7258 Racquet Club Dr. SLC. UT 84121

Celebrate the Old West in Kansas!

FREE Kansas Travel Packet!

Preview the Ooooh's in the "Land of Ah's."

Name _____

Address _____

City _____

State _____ Zip _____

Send to: KDED, Travel & Tourism Div.
503 Kansas, 6th floor
Topeka, KS 66603
913-296-2009

AWS5

The Expeditions of John Charles Frémont

Volume 3: Travels from 1848 to 1854

Edited by Mary Lee Spence. John Charles Frémont (1813-90) was a man of monumental achievements and abysmal failures. This volume concludes the trilogy on his great years of exploration, presenting Frémont the tarnished hero. Disaster struck in 1848-49, when his fourth expedition tried to cross the Rockies in midwinter. Unprecedented cold, impassable snows, and exhausted supplies forced a tragic retreat that claimed the lives of ten men and left lingering suspicions of cannibalism. A final but less fateful expedition would have to wait until 1853-54. 1985. 850 pages. Illustrated. $37.50.

Volume 1: Travels from 1838 to 1844

Edited by Donald Jackson and Mary Lee Spence. Collects documents covering Frémont's explorations in the upper Mississippi Valley with Joseph N. Nicollet, his 1842 expedition to South Pass and the Wind River Mountains, and his 1843-44 expedition to Oregon and California. 1970. 903 pages. Illustrated.
Map Portfolio. Available only with Volume 1. The set, $49.95; $33.28 when ordered with Volume 3, above.

Volume 2: The Bear Flag Revolt and the Court-Martial

Edited by Donald Jackson and Mary Lee Spence. Beginning with his third California expedition — a time of glory for Frémont — and concluding in the spring of 1848 with his bitter resignation from the Army. 1973. 480 pages. Illustrated. $30.00; $20.00 when ordered with Volume 3, above.
Supplement: Proceedings of the Court-Martial. 1973. 480 pages. $25.00; $16.67 when ordered with Volume 3, above.

Special Offer: Order Volume 3 and receive ⅓ off the list price of any previous volume.
Enclose this advertisement with your order, or refer to it if ordering by telephone.

UNIVERSITY OF ILLINOIS PRESS
54 E. Gregory Drive, Champaign, IL 61820

Order toll free 800/638-3030.
Maryland residents phone 301/824-7300.

Letters

February issue. To print an article condoning and glorifying Big Game Trophy Hunting is inconsistent for a magazine that prints more worthwhile and important pieces such as Doug Peacock's "A Gathering of Grizzlies" (November/December 1984) or the earlier story about shooting animals with a camera by Erwin and Peggy Bauer.

Betsy Perrodin
Rhododendron, Oregon

Rope Burn

Whoever wrote the description of your Grand Prize Photo is a real city dude (January/February, page 44).

If the rope the posed cowboy is holding is a horsehair rope ("you can almost feel the prickle of its firmly twisted length"), I'll eat every strand of it. I guess it to be a ⅜" medium-lay, very modern nylon rope, and about thirty-two feet long, judging by the coils.

Speck Wilson
Rankin, Texas

The writer of our caption goofed. The rope is not horsehair.—Ed.

Painting a New West

The abstract pictures in your January/February issue are shocking to those people who love the West. I am one of the subscribers who like your publication for the stories and pictures of the West as it is—and has always been. I have traveled over a wide area of that beautiful part of our country. It should be presented in a beautiful manner in your pictures, not in a distorted manner.

Louise H. Ingram
Avondale Estates, Georgia

Taos Plaza, 1921

On page 68 of your January/February issue, the illustration entitled *Taos Plaza, Winter 1921* contains automobiles much more reminiscent of the 1930s than those of the late teens and early 20s. Is the painting mislabeled, or was E. Martin Hennings prescient?

Alan J. Lamb
Mill Valley, California

I find it hard to believe that "E. Martin Hennings captured the look and feel of Taos Plaza in 1921." The photograph of Mr. Hennings's painting on page 68, January/February edition, depicts three automobiles with stamped steel tops and spokeless wheels. Although I can't identify the vehicles by make, I am sure that the painting does not depict Taos Plaza in 1921—perhaps in 1941.

Joseph R. Williams
Helena, Montana

The curator of the Anschutz Collection, to which the Hennings's painting belongs, assures us that we have the correct title of the work. A possible explanation for the anachronism is that the artist worked on this canvas over a number of years.—Ed.

Gun Control?

Thank you for the March/April "View from the West." I'm not one to write to magazines, and I do not advocate senseless killing as I'm sure you do not; however, as an American and an independent firearms dealer, I was happy to see someone who was not afraid to take a stand on such a touch-and-go issue as gun control. As for me, I cannot think of "gun control," without thinking also of justice and societies, that is "innocent societies" own well-being.

George W. Seed
Lawrenceville, Illinois

Harry Webb

The brief paragraph about the late Harry Webb in the January/February issue, page 12, said he joined Buffalo Bill's show in 1912. According to personal letters I received from Harry, he joined in 1910; so, who is right?

He also worked as a cowboy extra in silent films, and said the cowboys used to "cuss and tell dirty jokes," but forgot that certain people could read lips; so they had to stop. He also "broke horses" for the U.S. Army in World War I.

Walt Thayer
Wenatchee, Washington

Memories of Buffalo Bill

I am now eighty years old, but when I was nine years old, my parents moved from Omaha, Nebraska, to Cody, Wyoming, as dad got a job as superintendent of transportation.

Colonel Cody owned the Irma Hotel and Bar in Cody, and his manager was Fred Barlow who was married to Colonel Cody's daughter, Irma, whom the hotel was named for. The Barlows had two chidren, and my brother Ernie and I played with them every day.

Colonel and Grandma Cody had a big two-story home in the same block as the hotel, and often we entered the Cody home with the

Barlow children, and Grandma Cody always gave us homemade cookies. Colonel Cody always sat in his rocking chair by a big window, reading. Sometimes he would say hello, and other times he would ignore all of us.

I just thought you would like to know.

John Sampson
Vancouver, Washington

Gainesville Hanging

I enjoy your magazine very much. Many of the stories have a special interest. I was born at Gainesville, Texas, where the "Great Hanging" took place in 1862 (your November/December 1984). I had never heard about it before.

My husband and I took a nostalgic trip down Route 66 in Oklahoma about two years ago and were sad that it was being closed. A part of my heart will always stay in the American West.

Mrs. Edward Marshall
Saranac Lake, New York

Prairie Grizzlies

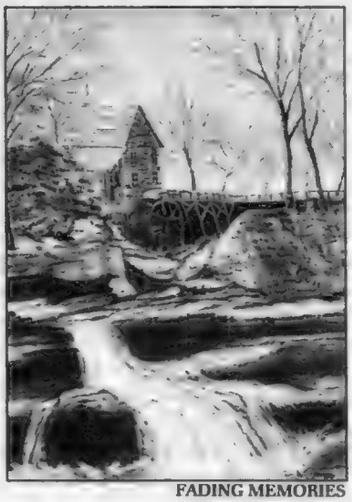
Regarding the various letters on the subject of Grizzly Bears that appeared in the March/April number of AMERICAN WEST: The Grizzly Bears found in the Swan Hills area of Alberta are known as the Prairie Grizzly. At one time they were considered extinct, but when the oil companies punched a road into the Swan Hills, they discovered the Prairie Grizzly.

There are an estimated one thousand of these bears roaming an area that is largely wilderness. This is the same Grizzly that gave Lewis and Clark so much trouble when they were crossing what is now Montana.

Hal D. Browning
Hunters, Washington

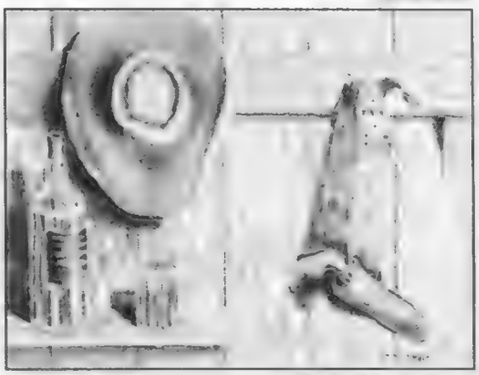
AMERICAN WEST welcomes letters from its readers. Some editing of letters may be necessary in order to print a cross section of those we receive. Please address: Letters to the Editor, AMERICAN WEST, 3033 N. Campbell Ave., Tucson, Ariz. 85719.

REMINDERS OF YESTERDAY



FADING MEMORIES

MEMORIES



WHEN THE DAY IS OVER

By western artist

Jim D. Mangrum

These 8 x 10 prints would compliment any home or office and at an affordable price of only $6.00 ea. With the purchase of any two, we will send a third print of your choice, FREE.
Each print will be signed by the artist.

Send check or M.O. to:

MANGRUM'S STUDIO & HOUSE of ART

P.O. Box 719, Broken Bow, OK 74728

A 5-piece Morgan Silver Dollar set that had sold for $250, is now only $125 ...and they're going fast!

c 1985 The Numismatic Guild

The Numismatic Guild is offering the beautiful Solid Silver Morgan Dollar in Treasury Sets of five for the unheard of low price of just $125.00 per set. A few years ago we were selling our five Morgan Dollar sets for $250.00 per set. Makes an ideal gift for any occasion.

Considered by experts to be the peak of the engraver's art, these silver dollars of 412.5 grains of ninety percent fine silver, .77344 ozs. of pure silver, are the *most sought after coins* ever minted in the United States. Dated from 1878 to 1904, they have become so popular that collectors and investors have been hoarding them for years. As a result, there are no longer *any Morgan Silver Dollars in circulation.* Now, due to a special purchase at an Estate Sale, we are able to make them available to you in this money saving offer.

Silver Dollar coins in general have increased in value *over ten times* in the last ten years. Some Morgan Silver Dollars sell for as much as $20,000 and a prime mint condition Morgan Dollar recently sold for $42,500.

Each Collector's set assembled by The Numismatic Guild is in fine condition and comes to you in a presentation case accompanied by a Certificate of Authenticity.

If you are not satisfied for any reason, you may return your coins within 30 days for a full refund.

CREDIT CARD HOLDERS—FOR FASTEST DELIVERY
CALL TOLL FREE 1-800-847-4100
24 HOURS A DAY—7 DAYS A WEEK (New York residents call 212-947-7022)

The Numismatic Guild Dept. AW-650
35 West 35th Street, New York, N.Y. 10001

Please send the coin set(s) checked below. I enclose ☐ check, ☐ money order in the amount of $_____. New York residents please add sales tax. I understand all coin sets will be sent registered and insured

☐ 1 five Morgan silver dollar set for $125.00 plus $7.50 p.p., hndl., ins.
☐ 2 five Morgan silver dollar sets for $240.00 plus $10.00 p.p., hndl., ins. Save $15.00.
☐ 5 five Morgan silver dollar sets for $595.00 plus $17.50 p.p., hndl., ins. Save $50.00.

ITEM NO 55

Name .....
Address .....
City ..... State ..... Zip .....
Telephone No. Home ( ) Office ( )

CHARGE MY: ☐ VISA ☐ DINERS CLUB ☐ MASTERCARD ☐ AMERICAN EXPRESS

CREDIT CARD NO. EXP. DATE: .....

SIGNATURE .....

EARTHQUAKE HAZARDS IN THE WEST

What can we expect from our trembling earth?

by Stephen L. Harris

THE QUAKE STARTED WITH A DISTANT LOW RUMBLE, THEN hit with the impact of a Mack truck slamming full speed into the side of a house. One moment our sixth grade class was squirmingly awaiting release into the noon-hour sunshine of a mild April day. The next, we crowded toward the door in near panic as the floor lurched beneath our feet and plaster showered down upon our heads. Shock waves traveled visibly up walls as windowpanes rattled and cracked with a deafening roar. Outside the second-story classroom, looking up at the stairwell ceiling, I saw the school's massive outside wall separate from adjoining partitions and jerkily sway back and forth, spewing chunks of mortar on teachers and children scrambling down the staircase. Shivering and creaking throughout its three stories, Tacoma's Old Edison Elementary School audibly protested the earthquake's assault on its Victorian dignity.

Our class reached the outdoors safely that April 13, 1949. Other students were not so fortunate. Across town an eleven-year-old patrol boy was crushed to death by bricks tumbling from his school's fourth-floor dormer as he emerged for lunch-hour duty. A young companion was badly injured. (As in California's Long Beach earthquake of 1933, school buildings were particularly hard hit.) Throughout the Puget Sound area, thousands of chimneys toppled, roofs fell in, and masonry walls crashed into the streets, killing several other persons and seriously injuring scores more. Felt over 150,000 square miles of the Pacific Northwest, the quake left eight dead and caused over $25 million in property damage.

The 1949 quake's epicenter (point on the earth's surface directly above the earthquake's underground source) was near Olympia, Washington state's capital, where nearly every large structure was damaged. From the Canadian boundary to south of the Oregon state line, fallen chimneys, cracked ground, rockslides, and crumbled masonry marked the destructive passage of what is still the most severe earthquake to jolt the Pacific Northwest during historic time. Registering a magnitude of 7.1 on the Richter Scale, the temblor was a "major" rather than a "great" earthquake like the 8.3 shock that shattered San Francisco in 1906. It was, however, significantly stronger than the better-known tremors that wreaked havoc in the San Fernando Valley in 1971 and virtually leveled the business district of Coalinga, California, in 1983.

The 1949 quake was also strong enough to stimulate my lifelong fascination with the geologic forces that can so dramatically convulse the earth, injecting an unpredictable element of excitement and danger into our lives. Walking home from school that clear April noon, I remember gazing at the immense glacier-clad bulk of Mount Rainier that dominates Tacoma's eastern horizon and wondering if there could be any connection between earthquakes such as I had just experienced and the chain of volcanic peaks—including Rainier and St. Helens—that stretches from British Columbia to northern California. Even then some scientists had noted the suggestive proximity of earthquake-prone regions and the belt of volcanoes that encircles the Pacific Ocean—the notorious "Ring of Fire."

Today geologists can explain the relationship between many Pacific coast earthquakes and volcanic eruptions like that which beheaded Mount St. Helens in 1980. Both the Cascade Range volcanoes and seismically active regions like western Washington and northwestern California are part of what scientists term a "subduction zone." According to the theory of plate tectonics, a subduction zone marks the point at which two rocky slabs of the earth's lithosphere (the rigid outer crust and the semimolten upper mantle) converge. Deep beneath the Pacific, new sea floor is almost constantly being created as molten rock erupts along linear spreading centers marked by submarine mountain ranges. The rising material forces older crustal rocks away laterally from the erupting source. At present two relatively small sections of the Pacific Ocean floor—the Juan de Fuca plate off the coast of Washington and Oregon and the Gorda plate off the northern California coast—are

In October 1971 Master photographer William Garnett found dramatic evidence of the giant flaw in the earth's crust known as the San Andreas Fault. This aerial photograph shows the Carrizo Plain in southern California.

PHOTO BY WILLIAM GARNETT

slowly, perhaps at the rate of one or two inches a year, being pushed eastward under the western margin of the North American continental plate. As the dense, heavy ocean floor is thrust downward (subducted) beneath the lighter granitic continental plate, the boundary between them sporadically sticks, then slips suddenly, generating the many earthquakes that afflict Northwest towns from Bellingham, Washington, to Eureka, California. When it dives deeper into hotter levels of the mantle, the basaltic ocean plate is partially remelted, creating subterranean pools of magma that rise to supply Mount St. Helens and her fellow Cascade fire-mountains.

AS IN THE PACIFIC NORTHWEST, MANY OF CALIFORNIA'S earthquakes are caused by the interaction of the Pacific and North American plates. But in California the geologic situation is significantly different. South of Eureka, the Pacific plate is not being subducted beneath the continental landmass but instead is gradually moving *alongside* it—in a generally northwesterly direction. The vertical boundary dividing this part of the Pacific plate from the North American plate is the San Andreas Fault, a giant flaw in the earth's crust that slices through the Golden State from the Mexican border to north of Point Arena, where it passes into the sea-floor. As the rocky slab underlying the Pacific plate inexorably grinds northwestward, sections bordering the fault typically become locked together. When pressure builds to the breaking point, the crustal rocks slip suddenly along the fault plane, producing seismic waves that range in intensity from scarcely perceptible quivers to the violent shaking that cripples whole cities. Large-scale movement along two different sections of the 600-mile-long San Andreas Fault has generated two of the greatest earthquakes in United States history, those of 1857 and 1906.

Most Western earthquakes are caused by movement along recognized faults—deep fractures in bedrock—that demonstrate their location by typically rupturing to the earth's surface. In the central and eastern United States, however, thick accumulations of sediment have buried ancient faults so deep that there remains little or no surface evidence of their existence. Nonetheless, a major fault zone, centered near New Madrid, Missouri, produced three of the most widely felt earthquakes in American history. (See "Western Geology Illustrated," AMERICAN WEST, January/February 1984.) These three shocks on December 16, 1811, January 23, 1812, and February 7, 1812, attained high magnitudes, inflicting severe damage throughout the central Mississippi Valley. Because of the present high population density in the affected area, which includes parts of six states, a similar event today could result in thousands of deaths and great monetary loss. Current research indicates that the central Mississippi Valley undergoes cataclysmic earthquakes comparable to those of 1811–1812 approximately every 600 years.

Society's collective memory is short, and many Westerners do not know where, how often, or with what force earthquakes have struck the areas they inhabit. By surveying some of the significant damaging earthquakes that have occurred in the Western United States during historic time, we can learn which localities are most at risk. Seismologic and geologic evidence can also give us a fair idea about where to expect major quakes in the future.

Wherever they strike, earthquakes cause damage through a number of associated geologic effects. Widespread shaking of the ground causes buildings to be thrown out of alignment or to collapse. Vibrating earthquake motion commonly produces secondary geologic effects such as landsliding and liquefaction of subsurface materials, a process by which saturated, clay-free sands or silts are transformed from a solid to a liquid state. When the liquified material is not confined and flows laterally underground, ground failure results. Western earthquakes are typically accompanied by surface faulting that can displace structures built on such faults. Occasionally, submarine earthquakes trigger *tsunamis*—seismic sea waves that can travel thousands of miles across oceans at speeds of 300 to 400 miles an hour. As the tsunamis approach shore, they begin to drag on the sea-floor, slow down, and rise to heights of fifty feet or more. Such earthquake-produced waves have repeatedly damaged low-lying coastal areas in Hawaii and Alaska.

The West's most highly publicized earthquakes have taken place in California, which has experienced three "great" shocks during the last 130 years (in 1857, 1872, and 1906), as well as scores of less destructive quakes. Despite the fact that jolts equaling or exceeding the strength of California's worst earthquakes have occurred in other states, notably Alaska, California's quakes have exacted higher dollar losses and caused twice the number of deaths than the combined totals of earthquake effects in the other forty-nine states. As California's population has grown, so have the lethal consequences of its temblors.

On January 9, 1857, part of the southern San Andreas Fault broke near Tejon Pass, offsetting the earth's surface between the San Bernardino Valley and Cholame Valley, a distance of more than 225 miles. The mightiest shock to afflict southern California since Europeans first settled there, the Fort Tejon quake has been assigned a Richter magnitude of 8.3. It caused severe shaking from south of Los Angeles northward to San Francisco and Sacramento, a wide area then sparsely inhabited. Although every building was leveled at Fort Tejon, only one fatality resulted—a woman was killed when her adobe house collapsed. Today, more than twelve million persons live within forty miles of this part of the fault, and tens of thousands of casualties and billions of dollars of property damage could result from a similar earthquake.

AT 5:12 A.M., WEDNESDAY, APRIL 18, 1906, THE NORTHERN San Andreas Fault ruptured from San Juan Bautista to Point Arena, creating visible surface displacement over most of that 270-mile distance. The most powerful upheaval to occur within the forty-eight conterminous states during this century, the San Francisco Earthquake caused tremendous destruction far beyond the city itself. Numerous coastal towns and villages suffered heavy damage, the small cities of Santa Rosa and San Jose were largely shattered, while many of the massive Romanesque buildings on the Stanford University campus were spectacularly ruined. One hundred

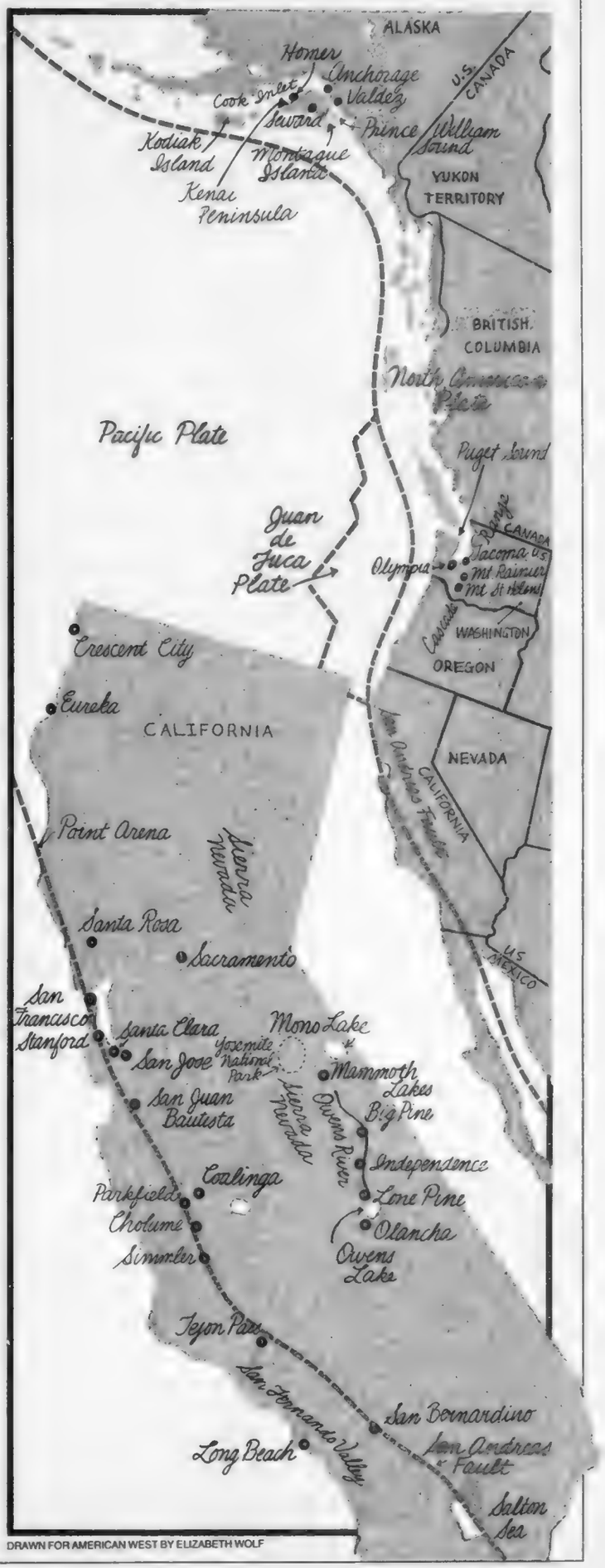
persons died when the poorly built Agnews Hospital for the insane completely collapsed. Locally along the coastline, high cliffs plummeted into the Pacific, the earth split in gaping fissures, railroad cars were thrown from their tracks, and rails were contorted into grotesque shapes. South of Santa Clara, landslides from both sides of the gulch in which the Loma Prieta sawmill was located completely buried the mill, entombing the nine men working there.

In San Francisco, which then had a population of about 425,000 and sported a score of steel-frame high-rise office buildings, structural damage was widespread but irregularly distributed. Brick walls, chimneys, and cemetery monuments tumbled throughout the city, but the most severe destruction was largely confined to low-lying areas of filled-in ground near San Francisco Bay. In some areas south of Market Street, the intense shaking of soils with a shallow ground-water table caused the ground to fail and subside many feet. The Valencia Street Hotel sank into the earth, crushing and burying scores of its residents as the fourth floor dropped level with the street. Some persons were drowned when water from broken mains flooded the shattered lower floors. About 700 persons died of earthquake-induced injuries, and the death toll would have been far higher had the quake not occurred when most people were asleep in their beds rather than out on the streets in the path of falling walls. [See "Western Lookout," this issue.]

But the earthquake, which caused damages then estimated at $75 million, had only begun San Francisco's destruction. Scarcely had the earth quieted, when fires broke out all over the downtown area, ignited by broken gas mains, overturned stoves, severed electrical wiring, and improvident householders who built breakfast fires using quake-raddled chimneys. By noon of April 18 a square mile of the city's heart was in flames, including much of the working class residential area south of Market Street. At about two that afternoon the fire swept across Market to the financial district and the hotels and fashionable shops around Union Square. By Thursday's dawn (April 19) Chinatown had vanished in smoke, and Nob Hill's mansions were aflame.

For three days and nights the conflagration raged unchecked, spreading over more than four square miles and leaving nearly 300,000 persons homeless. *All* the downtown "fireproof" buildings, which had demonstrated their superior design and construction by riding out the earthquake with only minor damage, were gutted in the holocaust. More than 28,000 buildings burned to the ground. No water was available to fight the fire. The quake had not only broken most of the city's water mains, it had also severed the main supply lines connecting San Francisco with its reservoirs. Not until firemen, the military, and ordinary citizens impressed into service had dynamited almost the full length of Van Ness Avenue to create the most expensive firebreak in history was the fire brought under control. Today San Francisco has devised an "earthquake-resistant" water supply system and a detailed battle plan to prevent repetition of the 1906 disaster. Only the next great earthquake can validly test the plan's effectiveness.

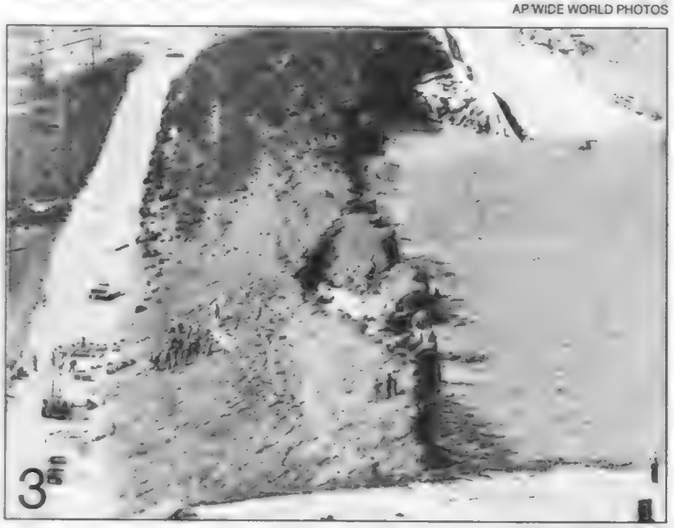
Despite the certainty of future large earthquakes, some as strong as those of 1857 and 1906, Californians need not worry



DRAWN FOR AMERICAN WEST BY ELIZABETH WOLF

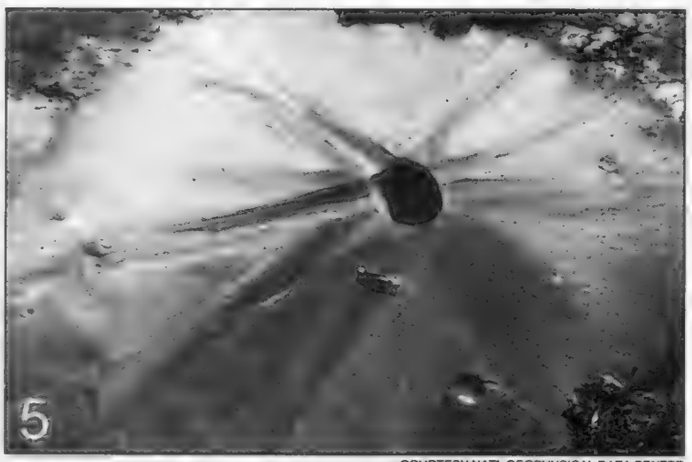
PHOTO BY WILLIAM GARNETT

AP/WIDE WORLD PHOTOS



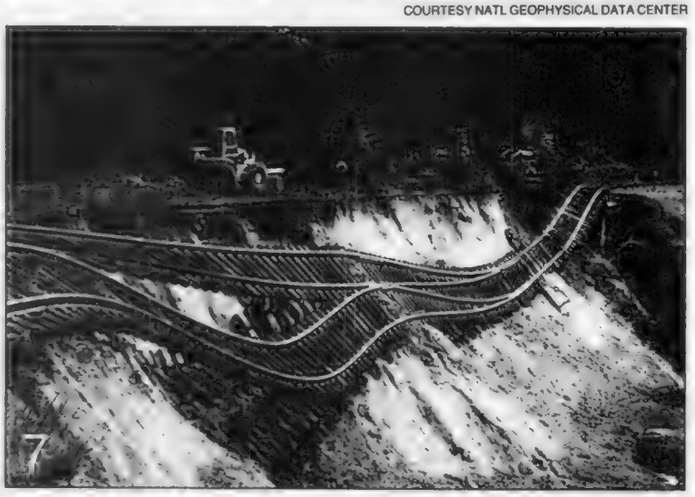
AP/WIDE WORLD PHOTOS

COURTESY NATL GEOPHYSICAL DATA CENTER

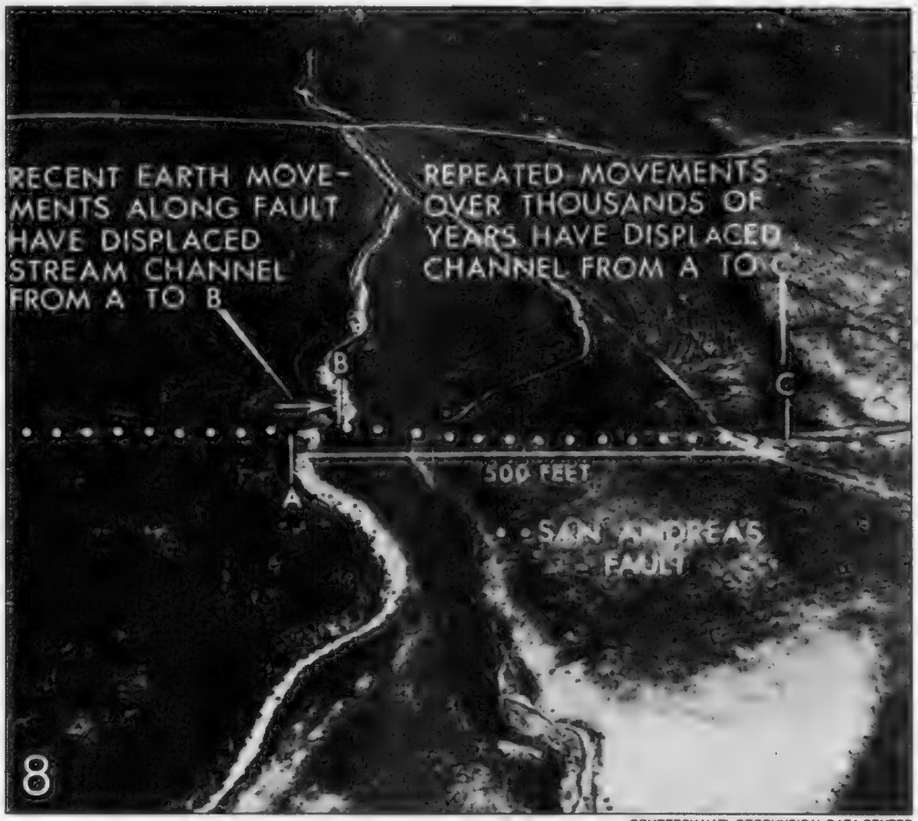


COURTESY NATL GEOPHYSICAL DATA CENTER

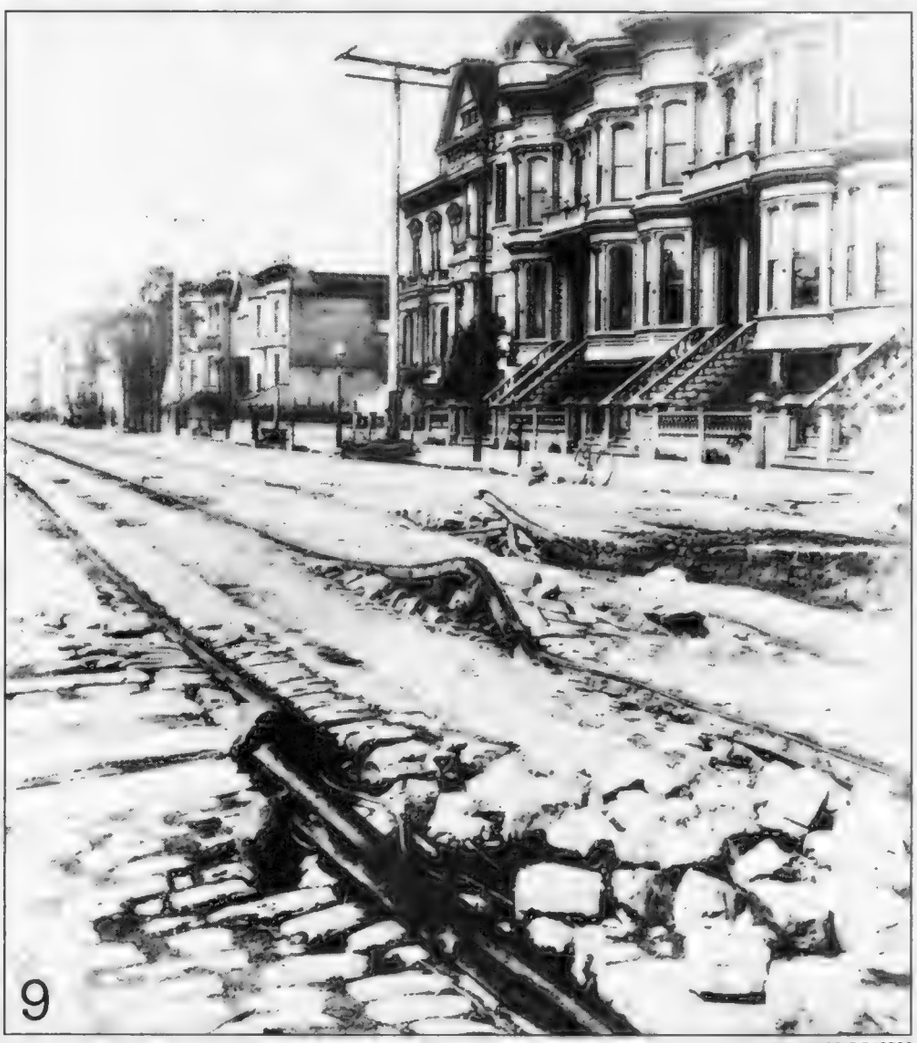
COURTESY NATL GEOPHYSICAL DATA CENTER



COURTESY NATL GEOPHYSICAL DATA CENTER


RECENT EARTH MOVEMENTS ALONG FAULT HAVE DISPLACED STREAM CHANNEL FROM A TO B
REPEATED MOVEMENTS OVER THOUSANDS OF YEARS HAVE DISPLACED CHANNEL FROM A TO C
B
C
A
500 FEET
SAN ANDREAS FAULT
8

COURTESY NATL GEOPHYSICAL DATA CENTER



AP/WIDE WORLD PHOTOS

Many Westerners do not know how often or where earthquakes strike.

1. Daly City, California, January 1959; state beach demolished by quake; San Francisco Bay and airport at upper left; San Andreas Fault runs top to bottom, into ocean below large cave-in.

2. A quake in October 1983 created a deep fault scarp fourteen miles long near Challis, Idaho.

3. February 1971; water laps at the top of the earthquake-damaged Norman Lakes reservoir in the San Fernando Valley, California.

4. El Centro, California; horizontal displacement of rows in lettuce field by quake of October 15, 1979.

5. The same quake produced this sand boil near El Centro.

6. Anchorage, Alaska; March 1964; the scarp passed under Government Hill School, leaving part of it on the unmoved ground and dropping the remainder into a wide trough.

7. Olympia, Washington; Union Pacific tracks gave way when hillside-fill slid from beneath a 400-foot section of the line during quake of April 1965.

8. Aerial view of the Carrizo Plain area in California, 1983, showing displacements of stream channels caused by earth movements along the San Andreas Fault.

9. Looking north on Howard Street, San Francisco, after the great quake of April 18, 1906. Buckling of streetcar tracks resulted from settling and forward movement of soil at lower right of photo.

about their state's "falling into the ocean." Although some journalists have exploited fears that an imminent cataclysm would cause the western San Andreas Fault block to sink beneath the Pacific, scientists dismiss this alarmist view. Throughout the tens of millions of years that the oceanic plate has crept and lurched northward with respect to the continental plate, movement along the San Andreas Fault has been primarily *horizontal*, not vertical. In 1906 maximum horizontal displacement was about twenty feet, with relatively little verticle change. Over millions of years, the crustal block carrying Los Angeles on its back will migrate north to the San Francisco suburbs—an eventuality that some northern Californians may perceive as an intolerable catastrophe, but not really equivalent to having the state suddenly disappear beneath the Pacific.

Although the San Andreas Fault produces our nation's most celebrated earthquakes, the east-central part of California experienced an event that possibly equaled them in size. On March 26, 1872, the Owens Valley Fault paralleling the steep eastern face of the Sierra Nevada shifted violently, cutting a deep furrow in the ground surface for at least 100 miles from Haiwee Reservoir south of Olancha to Big Pine. Here vertical movement was dramatic, particularly between Lone Pine and Independence, where displacement on opposite sides of the fault totaled twenty-three feet, with a horizontal shifting of up to twenty feet. The Owens Valley Fault is related to the Sierra fault system, where colossal fractured blocks of crustal granite have been uplifted during millions of years to form the Sierra peaks. As the mountains are elevated, the crustal block underlying Owens Valley to the east has subsided, generating innumerable earthquakes in the process.

John Muir was camping in Yosemite Valley the night the 1872 earthquake arrived. Exhilarated by the immensity of the event, he vividly described the clash and roar of huge granite boulders avalanching down the Yosemite canyon walls, striking sparks and electrical flashes as they crashed together in midair before thundering to earth.

Near the Owens Valley epicenter, destruction was nearly total. At the town of Lone Pine, which then had between 250

Measuring an Earthquake

Scientists measure the power of an earthquake from recordings of seismic wave amplitude made on a seismograph, calculated to be sixty-two miles from the epicenter. Americans are most familiar with the Richter Scale, which represents the amount of energy an earthquake releases by a number, commonly a whole number followed by a decimal. The San Francisco Earthquake of 1906 received a magnitude rating of 8.3, while the 1983 Coalinga, California, quake registered about 6.5. In comparing the size and strength of earthquakes, one must remember that the Richter magnitude scale increases logarithmically. The increase of a whole number on the scale represents an energy release about thirty times greater than that of the next lower number. Thus, the 1906 San Francisco event was roughly 1,000 times more powerful than the tremors that decimated Coalinga in 1983.

An earthquake rated a magnitude of 8.0 or above (the scale is open-ended) is considered a "great" quake. Three "great" shocks have struck California within the last 130 years: the Fort Tejon in 1857, the Owens Valley in 1872, and the San Francisco in 1906. At least two Alaska quakes (in 1899 and 1964) were even stronger.

An earthquake rated between about 7.0 and 7.9 on the Richter Scale is classed as a "major" seismic event. "Major" shakes are more frequent than "great" ones and have taken many lives and caused millions of dollars in damage.

Some of the West's most damaging earthquakes rank as only "moderate" in seismological terms. Registering between about 6.0 and 6.9 on the Richter Scale, some moderate shocks have been centered near densely populated areas where they caused far greater loss of life and property than much stronger earthquakes that were centered in largely uninhabited regions. The two "moderate" quakes in Long Beach (1933) and in the San Fernando Valley (1971) together caused more deaths than any U.S. earthquake since 1906.

In contrast to magnitude, which measures the strength *of an earthquake, scientists use intensity to describe the severity of earthquake* effects. *Unlike the Richter magnitude, which is determined objectively by recording earthquake wave motion on a seismograph, classification of intensity depends on subjective observations of the earthquake's effects on persons, buildings, and the ground surface at a particular place. The most commonly used rating scale is the Modified Mercalli Scale of 1931, which distinguishes twelve degrees of earthquake severity. Examples (paraphrased and abridged): VI Felt by everyone, many run outdoors, general excitement. Heavy furniture may be shifted; some cracked or fallen plaster, damaged chimneys. . . . VIII Most persons frightened, many approach panic. Water, sand, mud ejected from the earth in small to moderate quantities. Ground surface and pavements cracked. Damage* considerable *in ordinary substantial buildings. Changes in water levels of streams and wells. . . . XI Great slumping, fissuring, uplift and other deformities of the ground surface. Few, if any, masonry structures remain standing. Bridges and dams destroyed. Underground pipelines completely disrupted and unfunctional. Tsunami (seismic sea) waves sweep up coastlines; water, sand, mud geyser from earth in large quantities. . . . XII Damage total, with nearly all structures severely damaged or destroyed. Ground disturbances great, with large fissures, shearing cracks. Landslides and rockfalls extensive; slumping and collapse of river banks. Avalanches dam lakes, divert rivers, produce waterfalls. Waves seen on ground surfaces. Lines of sight and level distorted. Objects thrown upward into the air. . . .*

and 300 inhabitants, fifty-two of its fifty-nine adobe houses were leveled, killing twenty-three people. The earth heaved so violently that fish were thrown out of the Owens River onto the riverbanks, while a huge wave developed on Owens Lake. Eyewitnesses reported that water withdrew from the shore, standing in an apparently perpendicular wall out in the lake, before it returned, with unexpected gentleness to overflow the shoreline. Considering the size of the earthquake—estimated to have been at least 8.3 on the Richter Scale—the death count of sixty was low because very few people had settled in this arid terrain. This barren, wind-swept part of California still has few towns and low population density, but a repetition of the 1872 event today would cause considerable destruction.

North of Owens Valley in the Mono and Mammoth lakes region earthquakes are presently an almost weekly event. Beginning in May 1980 when a series of four earthquakes registering a Richter magnitude of about 6.0 occurred during one forty-eight-hour period, the community of Mammoth Lake has been shaken regularly. Unlike the 1872 shock, however, the current swarms of earthquakes are thought to be caused by a subterranean tongue of molten rock as it rises toward the surface. Scientists believe that these earthquakes may presage a volcanic eruption, perhaps within the next few decades.

A STATE OF ICE AND FIRE, WITH SOME OF THE WORLD'S LARGEST glaciers and most violently explosive volcanoes, Alaska is also the site of many tremendously powerful earthquakes that manifest the presence of an active subduction zone bordering the Pacific Ocean. Between 1899, when instrumental seismic recording began, and 1961, seven Alaska earthquakes registered 8.0 or higher on the Richter Scale. More than sixty equalled or exceeded magnitude 7.0. About seven percent of the seismic energy released annually on Earth originates in this northern line of the circum-Pacific chain of fire.

The Good Friday Earthquake that devastated south-central Alaska on March 27, 1964, was not only the largest quake to occur in North America since historical records have been kept, it was one of the mightiest convulsions of all time. Striking at 5:36 in the afternoon of a typically overcast day in early spring, the bone-jarring main shock lasted for a nightmarish *four minutes*—considerably longer than the duration of most great earthquakes. Centered approximately eighty miles southeast of Anchorage, the giant quake was felt over all of Alaska and portions of western Yukon Territory and British Columbia, an area totaling approximately one million square miles. The mountain-moving quake scored a Richter magnitude between 8.4 and 8.6.

Within seconds huge sections of the earth's surface rose or subsided many feet. Portions of former sea-floor along the coast were elevated to become dry land, while other areas sank precipitately. On Montague Island maximum uplift was thirty-eight feet, and at Cordova, seventy-five miles from the epicenter, docks were raised about eleven feet above their normal position at sea level. Simultaneously, vast tracks of land and sea-bottom subsided, including the northern and western parts of Prince William Sound, the western segment of the Chugach Mountains and portions of the lowlands north of the mountains, most of Kenai Peninsula, and almost all of the Kodiak Island group. Altogether, over 100,000 square miles of rugged mountains, ice fields, fjords, glaciers, and seashore underwent measurable vertical displacement, a larger area of surface distortion than that associated with any other known earthquake.

The violent buckling of the ocean floor, accompanied by massive submarine landslides, generated tsunamis that scoured much of the Alaska coast. At Valdez (a busy port built on unstable glacial deposits), an underwater delta slid into the sea, carrying with it the town docks on which thirty persons had been waiting for a merchant ship. All were borne to their deaths in watery chaos. Kodiak Island, Seward, and Homer (a picturesque fishing village located on a low spit at the tip of Kenai Peninsula) were also swept by deadly tsunamis. All these towns experienced severe damage, but many smaller coastal settlements suffered even heavier property losses in proportion to their size. Tsunamis generated by the Alaska earthquake proved lethal as far south as Crescent City, California, where twelve persons were drowned when waves twenty feet high rolled inland.

Anchorage, with a population at that time of about 100,000 (half the state's inhabitants), suffered spectacular damage. Erected on an alluvial plain near the head of Cook Inlet, Anchorage underwent both vertical and horizontal ground movement. Lateral movement along layers of silt and clay beneath the city's surface caused widespread and destructive fissuring. An affluent neighborhood constructed on Turnagain Bluff lost many expensive homes when 200 acres fractured and abruptly slumped 500 feet downhill toward the sea. In downtown Anchorage, many commercial buildings were demolished when large blocks of earth along L Street, Fourth Avenue, and Government Hill dropped several feet. The Good Friday Earthquake radically tested the design and construction quality of many large modern structures in Anchorage. Nearly every major building experienced significant damage, in some cases undergoing total collapse. With 114 persons dead, $350 million worth of property destroyed, and thousands of Alaskans suddenly bereft of homes or jobs, only prompt and relatively well-coordinated relief efforts prevented the earthquake from becoming a lasting sociologic as well as a geologic catastrophe.

California, Alaska, and Washington have been the centers of our greatest historic earthquakes in the West, but other parts of the region have also produced notable tremors. The western mountain region is particularly earthquake-prone because many of the mountain ranges are actively growing. "Major" and "moderate" temblors have plagued Utah, Nevada, Montana, Idaho, Arizona, and New Mexico since written records were begun in the midnineteenth century. In 1887 the American Southwest was severely shaken by an earthquake centered near Bavispe, in Sonora, Mexico. Large earthquakes in Nevada were felt over wide areas in 1915, 1932, and 1954. Masonry buildings in Helena, Montana, were badly damaged by earthquakes in 1925 and 1935, while a 7.1 shock on August 17, 1959, centered near Hebgen Lake, Montana, was felt over 600,000 square miles. This quake triggered an avalanche that

took twenty-eight lives and dammed the Madison River, forming the appropriately named "Earthquake Lake."

EARTHQUAKE CASUALTIES IN THE WEST HAVE BEEN LOW SO far, primarily because most quakes have occurred in sparsely populated areas. Also, the timing of large earthquakes has been remarkably fortunate: the California shocks of 1857, 1872, 1906, and 1971 took place either at night or during the early morning hours when most people were in bed rather than out on the streets. Both the Long Beach Earthquake of 1933 and the Alaska upheaval of 1964, which demolished many public school buildings, occurred in the late afternoon after schools had emptied and most commuters had left downtown areas. We cannot expect nature to time future earthquakes with such consideration for human welfare.

Two factors suggest that future casualties and losses will be much higher than in the past. First, areas previously affected by great earthquakes, such as those along the San Andreas Fault, are now far more densely populated than they were in 1857 or 1906. Rapid population growth throughout the West guarantees that deaths and injuries will soar during future earthquakes. Secondly, even earthquakes of "moderate" size, which occur with much higher frequency than "great" or "major" events, can cause appalling devastation when they strike heavily populated areas. Geologists now realize that the ground can shake almost as violently near a fault during a "moderate" event as it does during a "great" earthquake. (See accompanying inset distinguishing between earthquake *magnitude* [energy release on the Richter Scale] and *intensity* [movement at a given locality on the Mercalli Scale].)

This truth was graphically demonstrated on February 9, 1971, when a 6.4 magnitude earthquake struck the San Fernando Valley. Because it occurred adjacent to a highly developed, densely populated environment, the San Fernando quake created havoc all out of proportion to its relatively moderate size. In death toll and property damage among California quakes, it is second only to the immensely greater shock of 1906.

Where may Westerners expect destructive earthquakes to occur next? Because no earthquake of comparable magnitude has taken place along the southern part of the San Andreas Fault since the Fort Tejon shock of 1857, some geologists believe that the Los Angeles region is now more likely to experience a "great" San Andreas earthquake than is northern California, where seismic pressure was presumably released more recently in the 1906 cataclysm. According to a 1983 U.S. government analysis of the San Andreas system, researchers concluded that the Fault's southernmost segments, the 200 miles from Tejon Pass down to the Salton Sea, hold a "high probability" for experiencing a "great" earthquake during the next twenty to twenty-five years. Other San Andreas Fault segments, between Parkfield and the village of Simmler, also show positive prospects for at least a "major" quake within the next few years. The U. S. Geological Survey is presently conducting an extensive experiment in monitoring for possible earthquake precursors around Parkfield, where the long-term seismic behavior of that stretch of the Fault indicates that a significant earthquake near Parkfield is likely between the mid-1980s and mid-1990s.

California and Alaska can anticipate more frequent large earthquakes than most other states, although western Washington, Nevada, and the Rocky Mountain region can also expect intermittent shaking. More quakes like the 1983 Idaho temblor are inevitable, but geologists have not yet devised a reliable means of predicting exactly where or when a major earthquake will strike.

While awaiting the next terrifying lurch of the earth beneath our feet, we Westerners can do much to minimize future loss of life and property. By refusing to build or live in structures erected atop earthquake faults, unconsolidated land-fill, or other ground surfaces likely to be distorted or to fail during severe shaking, we can preserve lives and avert a principal cause of property damage. We can also improve our construction methods. In April 1984 a moderate tremor on the Calaveras Fault, near San Jose, California, inflicted millions of dollars' damage, chiefly by shaking a number of expensive houses off their foundations. Some California experts in seismic safety pointed out that most of the damage could have been prevented if homebuilders had used a simple and cheap method to brace the base of a house against destructive shaking. As the law requires in many earthquake-prone areas, the heavy wooden "sill plates" that lie atop the concrete foundations were all properly bolted to the foundations. But the vertical studs above the sills, that support the first-floor beams and joists, were inadequately strengthened against side-to-side earthquake movement.

According to some California engineers, installation of plywood sheets by nailing them securely across the studs above the foundation near each corner of a house will keep the house from slipping off its foundation during earthquakes. Such preventive measures should cost no more than $500 and can save a homeowner many thousands of dollars when a destructive earthquake strikes. Legislative enactment and strict enforcement of earthquake building codes, particularly in freeway overpass construction, can also reduce casualties during future temblors. In the 1983 Coalinga quake, many older masonry structures collapsed while modern earthquake-resistant buildings survived the shocks unscathed.

Geologists recognize that future earthquakes are inevitable in almost every part of the West. Some quakes in California and Alaska will have devastating effects. Despite recent increases in population density, observance of proper building codes and careful government planning for relief services after natural disasters will help reduce the toll. But the most careful preparedness will never banish the strange blend of helplessness and excitement that we all must feel when unexpectedly caught by our trembling earth.

The author wishes to express his gratitude to Dr. Joseph I. Ziony of the United States Geological Survey, Menlo Park, for his helpful review of the original typescript.

A professor of Humanities at California State University, Sacramento, **Stephen L. Harris** *is currently writing a book on aspects of Western geology.*

A powerful new work created in the rich tradition of bronze horse sculpture.

An original sculpture dramatically revealing Monroe's love and knowledge of horses.

Horses have always been a very special part of Lanford Monroe's life. There has never been a time when she hasn't owned or worked with them. And, as an experienced equestrian, she has the most profound understanding of their inner spirit as well as their physical beauty. It's no wonder, then, that her enormous artistic talent finds its finest expression in the extraordinary bronze sculptures she creates portraying these magnificent creatures.

Now, The Franklin Gallery takes pleasure in announcing "The Intruder," a compelling new work by Lanford Monroe—one that confirms her dominance among the great horse artists of our day.

In this original sculpture, a stallion and his mare—their peaceful browsing shaken by an unfamiliar sound or scent—stand alert. It is a moment of high drama and primal impact, when natural curiosity is tenuously balanced by the instinct for survival. The scene is portrayed with complete and stunning realism—the quality most highly valued by knowledgeable collectors of bronze horse sculpture.

To capture every detail of the artist's work, "The Intruder" will be crafted in cold-cast bronze. Each piece will be *individually* shaped from a carefully prepared sculptor's blend of powdered bronze and resins, then meticulously *hand-finished* to achieve the lustrous patina that is characteristic of the finest bronzes.

This important new sculpture is available only by direct application from The Franklin Gallery. And there is a limit of one per order.

Displayed in the home, this vibrantly life-like work will be enjoyed, admired—and talked about—by all who see it. A superb example of horse sculpture at its exciting best.

You need send no payment now, to acquire "The Intruder." Simply return the accompanying Order Form to The Franklin Gallery, Franklin Center, PA 19091, by June 30, 1985.

The Franklin Gallery
A FRANKLIN MINT COMPANY

Shown smaller than actual size of approximately 8" high × 11½" wide (including base).

© 1985 FG

ORDER FORM

THE INTRUDER *by Lanford Monroe*

The Franklin Gallery
Franklin Center, Pennsylvania 19091

Please mail by June 30, 1985.
Limit: One per order.

Please accept my order for "The Intruder," an original sculpture by Lanford Monroe, to be crafted for me in cold-cast bronze and hand-finished, at the issue price of $195.*

I need send no money now. When my sculpture is ready to be sent to me, I will be billed for a deposit of $39.* and, after shipment, for the balance in 4 monthly installments of the same amount.

**Plus my state sales tax and $2.50 for shipping and handling.*

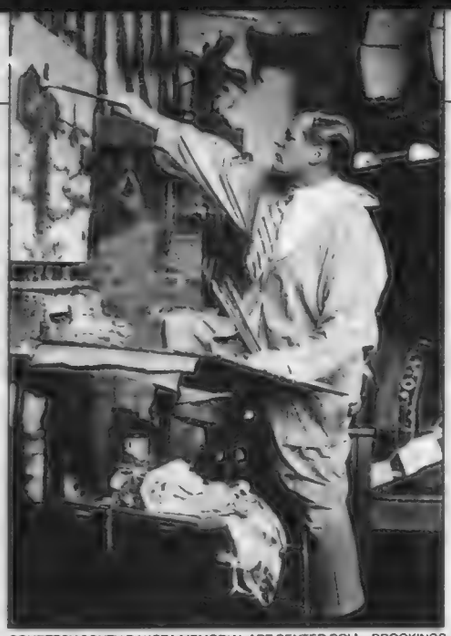
Signature _____
ALL ORDERS ARE SUBJECT TO ACCEPTANCE.

Mr./Mrs./Miss _____
PLEASE PRINT CLEARLY

Address _____

City _____

State, Zip _____



COURTESY SOUTH DAKOTA MEMORIAL ART CENTER COLL., BROOKINGS

PLOWING & PAINTING THE PRAIRIE

Dakota farm boy Harvey Dunn portrayed brave pioneers in a harsh land

by William T. Anderson

A giant of a man, Dunn preferred to paint in a bold, large-scale style using large brushes and plenty of paint. At his Tenafly, New Jersey, studio he turned out the bulk of his work and became a top-flight magazine illustrator in the heyday of serial fiction. Dunn mastered the ability to paint effectively for periodicals when most of his work was reproduced in black and white.

A TWELVE-YEAR-OLD BOY WALKING BEHIND A SOD PLOW stopped the horses and gazed over the green expanse of rolling prairie. As far as he could see there was nothing but miles of flowing grassland under the blue of the springtime sky. Wild flowers dotted the treeless landscape, and in the distance a far-off yellow speck showed that a homesteader had built a solitary shanty of pine boards. "Someday," the boy thought, *"I'll paint this scene!"*

The husky South Dakota farm boy was Harvey Thomas Dunn (1884–1952), who became one of America's best-loved artists and portrayers of the West. He was born a century ago in a drafty Dakota claim shanty, but his career took him far from his Western origins—to big cities to perfect his art skills, to Europe to record man's inhumanity during war, and to the New Jersey suburbs where he set up a studio and gained fame as an illustrator, painter, and teacher. Yet Dunn never lost his kinship with the West, especially the lonely, sweeping prairie panoramas he knew as a boy growing up near Manchester, South Dakota.

In the one-room schoolhouse Dunn attended, his teacher hid the chalk box from his artistic fingers before the supply was used up for drawings covering the narrow blackboard. The boy was constantly sketching hulking oxen, nodding sunflowers, gnarled cottonwoods, and vignettes of the surrounding rolling plains. But his family had little time to nurture artistic yearnings. Their lives were filled with work and worry over crop failures, livestock, and the rage of blizzard and drought that overshadowed the homesteader's life. Occasionally in the evenings by the light of the flickering kerosene lamp, Dunn and his mother sketched together and dreamed of what lay beyond the grassy plains.

At seventeen Dunn left the farm, determined to become a painter. With money earned by plowing, the hearty, friendly farm boy entered South Dakota State College at Brookings. Interested only in art, he blossomed under Ada B. Caldwell's inspired teaching. She understood Dunn's yearning for paint and palette and encouraged him.

> She opened new vistas for me. For the first time I had found a serious, loving and intelligent interest in what I was vaguely searching for. She seemed to dig out talent where none had been, and she prayed for genius. She was tolerant and the soul of goodness. With my eyes on the horizon, she taught me where to put my feet. (Robert F. Karolevitz, *Where Your Heart Is . . .* [1970], p. 21)

COURTESY SOUTH DAKOTA MEMORIAL ART CENTER COLLECTION, BROOKINGS

Harvey Dunn, *Just a Few Drops of Rain*, oil on canvas. *Dunn well remembered the curse of brassy summer skies, withered crops, and yellowed prairie grasses. As a homesteader's son he lived through the memorable dry spell of the early 1890s and understood the agony of drouth. Here Dunn depicts the whimsy of nature in shedding only a few drops of rain on a discouraged homesteader-wife. When executing his paintings, Dunn combined both memory and discipline to attain his desired effect. "I sweat, strain, and swear in front of that canvas," he declared.*

COURTESY SOUTH DAKOTA MEMORIAL ART CENTER COLLECTION, BROOKINGS

Harvey Dunn, *Settlers in Canada*, oil on canvas.
Illustrators like Dunn enlivened the contents of popular magazines of the 1920s, 1930s, and 1940s. A careful reader of the fiction he illustrated and a researcher when the prose required it, Dunn brought visual drama to the work of top fiction writers. What is the conversation here? A shared bit of news between seldom-seen neighbors, or a spirited discussion about ownership of the logs being hauled?

COURTESY SOUTH DAKOTA MEMORIAL ART CENTER COLLECTION, BROOKINGS

Harvey Dunn, *Jedediah Smith in the Badlands*, oil on canvas.

Over the years Dunn frequently painted historical scenes, ranging from portrayals of Ethan Allen, Paul Revere, Lewis and Clark, and Lincoln to Franz Schubert. Here he combines his penchant for the legendary Jedediah Smith with his innate love for Western—and especially South Dakota—landscapes. When he overheard a man bemoaning a dreaded ride through the Badlands during the "dirty thirties" he was silent. But he later remarked that "there is not an uninteresting mile" all across the Dakota countryside.

COURTESY SOUTH DAKOTA MEMORIAL ART CENTER COLLECTION, BROOKINGS

Harvey Dunn, *School-Day's End*, oil on canvas.

The ice blue indifference of subzero winter days and the vulnerability of isolated buildings on the immense prairies is graphically communicated in School-Day's End. *As a child, Dunn knew that low-riding dark clouds on the northwest horizon meant a blizzard's approach. The sinister tales of frozen children, blizzard-bound schoolhouses, and frostbitten limbs sawn away prompted every Dakota child to make haste in reaching shelter on short winter days.*

Still as "wild as the cattle back home" after a year in college, Dunn transferred to the Art Institute in Chicago at the direction of Ada Caldwell. Dunn's first class in the awesome institute left him bewildered; he couldn't understand why composition class consisted of drawing circles in alternating arrangements. Tired of that, he started sketching something he knew, something from real life—something that seemed honest. It was a covered wagon, mired down in the black prairie mud. Such subject matter in a straightforward, honest approach would surface again and again on his sketch pad and easel.

In 1904, Dunn was selected by the noted illustrator and teacher Howard Pyle to study under his direction in Wilmington, Delaware. Pyle's goal was to produce professional illustrators from the ranks of his chosen pupils, and the day came when Pyle told Harvey Dunn he was ready to establish his own studio.

Harvey Dunn found instant success in 1906, during the golden age of magazine illustration. From his studio at Wilmington (he'd also established a home there with his bride Tulla Krebs), Dunn turned out book and magazine illustrations and a myriad of advertisements ranging from Steinway Pianos to Coca-Cola.

Later, in studios set up in Leonia and Tenafly, New Jersey, Dunn's commitment to his craft expanded to teaching. The thrust of Dunn's straightforward instruction has been felt through decades of work produced by his students, who include Western painters Art Mitchell, Harold von Schmidt, Grant Reynard, and Dean Cornwell. Said Cornwell: "Perhaps the most valuable thing that Dunn taught us was honest dealing with our fellow man and a constant gratitude to the Maker above for the privilege of seeing the sun cast shadows."

EARTHY, SENSITIVE, STRONG MINDED, DUNN WAS A PERfectionist in the work that flowed from his huge hand through the broad brushes he favored onto the canvas. One editor made the mistake of telling him not to put too much time into a painting; the budget was small. Dunn snapped: "I'm really working for this fellow Harvey Dunn, and he's *got* to be pleased!" A student recalled Dunn's heartfelt conviction of art's worth: "When we see a beautiful picture, let us realize that we're seeing what a man dug out of himself. If he made a beautiful picture he is beautiful inside. He couldn't do it otherwise."

During World War I, Dunn was one of eight artists commissioned in the Engineer Corps to portray the European front for Americans at home. Dunn's stunning portrayals of war's effect on civilians and servicemen alike created a valuable visual record but were not personally satisfying to the painter. (A number of his war paintings hang in the Smithsonian.) When Dunn's tour of duty ended, he was relieved to be finished with a genre that depicted despair and violence.

As his professional career flourished, Harvey Dunn was once more lured to the land of his birth. For twenty-five years he made annual summer visits to South Dakota, and in his New Jersey studio he painted many of the remembered boyhood scenes. "It is a paradox perhaps that the farther away I get from those pioneer days, the closer I am to them," he remarked. The painter's compulsion to portray sod houses, roaming herds, covered wagons, and brave men struggling against a fierce, resistant land persisted until the New Jersey studio was a storehouse of Western art.

Dunn's Western works celebrate the land—the panoramic open spaces, lush fertility, stark beauty, and the violent moods of weather and wind. But people nearly always appear in these paintings—sturdy, self-reliant men and women accustomed to grunting hard labor. They were the simple honest folk that Dunn had encountered as a prairie homesteader himself.

In 1950, two years before his death, Harvey Dunn shipped forty-two of his paintings back to "the land I love." For three months the exhibition drew thousands to the tiny town of De Smet, South Dakota, where the forceful canvasses hung on the walls of a former church. From there, Dunn's collection went to Brookings to the campus of South Dakota State University as an outright gift to the college that had given the artist his first inspiration. Now, over seventy of Dunn's works adorn the South Dakota Memorial Art Center, a building designed especially for the exhibit of the prairie artist's work.

"My search for other horizons has led me around to my first," Harvey Dunn explained simply as he described his warm-hearted portrayals of an era and a countryside. The Western prairie was always Harvey Dunn's garden.

BIBLIOGRAPHIC NOTE

The author extends credit to personal interviews and correspondence with Aubrey Sherwood of De Smet, South Dakota, an admirer and friend of Dunn, for impressions and data on the artist. Interested readers may consult the following: Robert F. Karolevitz, *Where Your Heart Is . . .* (1970); Aubrey Sherwood, *Harvey Dunn* (1969); Aubrey Sherwood, *I Remember Harvey Dunn* (1984).

William Anderson, *a teacher and freelance writer interested in Western history, took his master's degree at South Dakota State University, the alma mater of Harvey Dunn and site of the permanent collection of Dunn's paintings.*

Harvey Dunn, *Timberline*, oil on canvas.
Though Dunn's roots were in farming communities that favored the fencing of open lands, he could empathize with cowboys and sheepmen who fought that fencing. Here Dunn reveals his artistic versatility by portraying the solitary plight of a Western sheepherder tenaciously leading his flock through foul weather and rough terrain.

COURTESY THE ANSCHUTZ COLLECTION

COURTESY THE PETERS CORPORATION

Harvey Dunn, *Prairie Wife*, oil on canvas.
"If you paint what you see, you won't have a good thing. Paint a little more of the spirit. Let it be an expression rather than a description." Dunn's philosophy of his own work is perhaps never better expressed than in his portrayals of women who helped settle the West—the indomitable homesteader-wife. Dunn's Western women possess rugged strength, keen appreciation of the endless land, a wily knack of dealing with hardship, and a dreamy belief in the pioneering concept, "It is better farther on."

Mysterious and elegant, a hooded peregrine falcon sits quietly on its master's gloved hand under New Mexico skies.

PHOTO BY PHILIP L. SHULTZ

Steve Bodio is a licensed master falconer who lives and writes about the mystical relationship between man and falcon— the wild hawk that deigns to share his freedom with a human friend by flying unfettered on the hunt and returning of his own accord to the human call. As Bodio tells us : "A hawk is your master or mistress. . . . The education of the falconer is a chastening process during which you learn to be polite to an animal. . . . Your purpose in the field is to assist the bird, your reward the companionship of a creature that could disappear over the horizon in fifteen seconds flat." The rituals and intricacies of the difficult sport of falconry become a way of life, perhaps almost a religion, for those who establish the legendary bond with this ancient bird of prey. Like Bodio, they thrill to a rage for the noble falcon.

To Hold a Piece of Western Skies

A master falconer's search for longwings

by Stephen Bodio

THE MALE KESTREL CHECKED IN HIS FLIGHT OVER THE pitch-pine barrens, turned into the wind, hovered for a moment, and dropped like a stone onto the tethered pet-store mouse. I waited for a moment in disbelief that such an event, so far known only in books, could be happening in real life. Then I pulled the string attached to the bow net. The clamshell contraption of badminton netting and yardsticks popped closed and I ran in to grab the tiny falcon before it could pull loose. Its high-pitched protests were like fingernails on blackboards, like breaking glass, but they could have been triumphal music. Nor did it bother me a bit when, as I grabbed the little monster's electric body, he turned on his back in terror and "footed" me with a handful of hot needles. I had pulled a hawk out of the sky.

A half hour later my friend caught his mate. A week later the male flew unrestrained across my friend's yard to me. As he placidly munched on the piece of stew beef I held between my fingers, I thought that the only thing better than pulling down a

© 1984 by Stephen Bodio. Reprinted by permission of Nick Lyons Books from A Rage for Falcons, *NLB/Schocken, 200 Madison Avenue, New York, New York 10016. This article was excerpted and adapted by the author.*

FALCONRY RESTRICTIONS

Controversy is still very much a part of falconry. During the summer of 1984, in a much-publicized "sting" operation, the U.S. Fish and Wildlife Service arrested over thirty falconers for allegedly trafficking in endangered species, with ties to Europe and the Near East. The Audubon Society immediately called for changes in the federal regulations regarding commerce in birds of prey, maintaining that present rules make cheating too easy. The North American Falconer's Association, while condemning all infringements of wildlife regulations, pointed out that the only people who offered the birds for sale were the USFWS themselves, that federal agents had removed rare birds from the wild, and, perhaps most importantly, that the federal informant had been turned in at least eight times by falconers, including one who reported him directly to the attorney general of South Dakota.

Falconry is the most regulated field sport in America. The federal regulations are based on the "three tier" system, which divides falconers into apprentice, general, and master classes. In order to begin with hawks, the apprentice must find a sponsor from one of the higher classes, must have his hawk house inspected for compliance with complicated federal standards, must complete a long written test with a score of eighty percent or better, and finally must trap a live first-year adult of one of two common species, the kestrel or the red-tailed hawk, under the supervision of his sponsor.

After two years, if the apprentice has been successful and can pass a more difficult written test, he may keep up to three birds of any unendangered species. After five more years and a still more difficult test, he is considered eligible to keep legally procured endangered species. State laws usually are stricter than the federal regulations, but may never be more lenient. No one gets to be a master falconer without showing more dedication than most people in modern civilization ever give to *anything*, never mind a bird!

Once a falconer has achieved the general license level, he may legally take a bird from the nest, a practice forbidden to apprentices both because it is easier than trapping an adult and because nesting birds are a valuable resource. Falconers may not legally "clean out" a nest, because if they do the parents may abandon the site. Nestling birds are also, paradoxically, harder to train effectively than wild-caught adults. Besides, feathered parents are more effective hunting teachers than humans. Properly trained young hawks do have certain advantages—they are fearless and friendly. But if they are not handled perfectly they are also aggressive and, since they have a tendency to scream for food, unbearably noisy.

hawk from the sky by trickery was to return him there and have him come back to your call because he wanted to. Twenty years later, I still do. When, a couple of days later, the female choked on an oversized hunk of meat and died, my friend's mother cut the little male loose. It was an act of kindness that I resented for a year. But the moment of contact had kindled in me a rage for falcons that will be a part of me until I die.

Falconry, the ancient sport of hunting with birds of prey, is alive today, practiced by perhaps 2,500 dedicated enthusiasts in the United States. It owns a history of passionate commitment and controversy; King James I, himself a falconer, called it "an extreme stirrer-up of passions." Hawks and falcons have been revered as hunting companions, restricted to the aristocracy, and reviled as competitors of and predators on man's domestic animals.

When I moved to the West I was used to Eastern hawks like the goshawk and merlin, which nest in trees, and had no experience with the large, cliff-nesting falcons, although I was a licensed master falconer. I spent some time with Nevada master Harry McElroy in the early spring, learning how to spot active prairie falcon eyries, then took what I had gleaned from Harry back to my new home in southwestern New Mexico.

It was a time of shifting perspectives. I could expect to find goshawks within ten miles of anywhere that I had lived in Massachusetts, but in New Mexico I soon found myself checking out "nearby" canyons that were eighty miles away over unspeakable roads. Nests were farther apart than in Nevada, perhaps because water was scarcer. I had little luck. I found a couple of abandoned but pretty definite nest ledges etched with the distinctive "noodles" even after a year or more of abandonment. I visited a known site with two other experienced falconers from Albuquerque, Jim Skidmore and Mark Slifka, but miles of tramping across rangeland and up the rocky sides of canyons found us a lone female in place—a widow perhaps, but definitely not nesting that year. The whole area within a hundred mile radius seemed empty of young falcons.

With about five days left in the legal season for taking eyasses, I decided to make a last pass by a line of cliffs fifty miles northwest of my home. It was a habitat that only a predator could love: a curl of smoothly sculptured sandstone like a breaking wave running for several miles above the desert's harshest landscape, lava malpais—badlands. The lower stratum resembled a titanic bulldozed parking lot, but what looked like tar had the consistency of broken glass. And yet there was life everywhere. Canyon wrens scuttled around the rocks like lizards, bursting into startling loud song, rabbits flushed from underfoot and disappeared under packrat nests, fresh deer tracks lingered in the shade of junipers, and colonies of hundreds of white-throated swifts wheeled and screeched overhead in an aerial roller derby. My friends had told me that at least one pair of prairies nested there every year and had

At his home in southwestern New Mexico, master falconer Steve Bodio poses with an adult, male lanner falcon of commanding presence.

PHOTO BY BETSY HUNTINGTON

drawn me a detailed map showing the eyrie. But although I had found nests of raven and redtail there, I hadn't seen even a wandering falcon.

YET SOMETHING ABOUT THE AREA—ITS INNUMERABLE potholes, abandoned nests, and tantalizing possibilities—kept me coming back. That day I spotted a stick nest that I hadn't seen before in a deep bay of the cliffs. More out of a naturalist's curiosity than from any real expectation, I stepped out of the pickup to glass the nest without the vibration of the engine. I could hear a raven's gargle over the truck's noise—and maybe something else. Gesturing "turn it off" to my friend Betsy with one hand, I stepped a little closer to the cliffs, mouth open to catch the faintest sound, hardly daring to believe that I had heard it—two unmistakable baby-falcon voices screaming alarm, one pitched lower than the other.

For two hours, that was all I had. I could see nothing to mark the nest; no movement, no certain noodles, and too many shapeless splashes of whitewash to indicate anything intelligible. The babies sang out more or less continuously, but echoes bouncing off the walls of the bay made it impossible even to guess where they were. I decided to go up top.

GLOSSARY

eyas: young falcon before it leaves the nest
eyrie: nest of a raptore (usually confined to cliff-nesting falcons)
falcon: long-winged, bird-catching hawk of the genus *Falco*. Also used to denote the female of the falcon species. See **longwing, tiercel**.
goshawk: *Accipiter gentilis*; large forest-nesting hawk, used for hunting both ground game and birds
hawk: diurnal (daytime) bird of prey. All falcons are hawks, but not all hawks are falcons.
kestrel: tiny common falcon, once known as "sparrow hawk"
longwing: falconry slang for "falcon"
merlin: another small falcon, the "ladies' hawk" in the Middle Ages
natal down: fluffy white coat of young nestlings. The feathers push up from under the down.
noodles: falconry slang for the pattern that falcon droppings make on a cliff
prairie falcon: *Falco mexicanus;* common western falcon inhabiting dry country
raptore: any bird of prey
redtail: *Buteo jamaicensis;* common, large, soaring hawk
tiercel: male falcon, a third smaller than female or "falcon." See **falcon.**

I am no rock climber, and hanging around on top of high walls is not my favorite part of falconry. You might even consider me a little acrophobic. But I had no choice. I found a place where old rockfalls had opened a possible way to the top and scrabbled up over fifteen-foot pebbles hoping I wouldn't have to turn back. A curve in the rock cut off the sound of the eyasses. Somehow I reached the juniper scrub at the top and picked my way cautiously through the last of the level ground (at the last abandoned nest I had explored, I had confronted a five-foot diamondback at eye level) to find that the top just curved away exactly like a wave, getting steeper and steeper until it broke. I didn't dare get too far out, and the overhang concealed everything. Impasse.

Finally I forced myself out on one arm of the bay. There, erosion had produced an arch and some fissures where I could theoretically get down a little and look back into the curve. I could see some observation ledges just below me, whitened with what looked like falcon droppings. Now I could see Betsy below, looking sickeningly tiny and foreshortened, and once again hear the nervous chant of at least two little falcons. There was nothing to do but edge out even further. I flattened out on my belly and crawled.

It was horrible. I was angled head-down, and I could feel the cliff tilting to spill me off. The only biting gnats I have yet encountered in New Mexico swarmed around my sweating face. And white-throated swifts, doubtless drawn by the gnats, zoomed by a foot from my face at about sixty miles an hour, so fast that their wings hummed. I forced myself forward until I could see bare ledge spattered with whitewash and hear the babies as clearly as if they were amplified. I *still* couldn't see the eyrie. In the circumstances all I could do was retreat. I crawled back, stood, and just breathed for about ten minutes before my legs would support me well enough for the climb back.

When I reached the foot of the talus slope, Betsy ran up to inform me that the birds must be able to see her. Every time she moved, they screeched. Before I could give her any all-knowing falconer's remarks, I looked up toward the noise once more. And there, in a pothole that was invisible from more than ten feet away in either direction, stood two nearly fledged prairie falcons like little mannequins. Screaming.

WE RETURNED THE NEXT DAY WITH JIM AND MARK. They arrived equipped with ropes and climbing equipment, assuring me that rock climbing was easy. They had already decided that Jim would go down the rope and Mark would man the cliff top and handle the belaying. Not only did I not have to dangle over the edge of the precipice, but I could watch the whole thing. And if the eyasses flew, as was more than likely considering their age, I would be the one to run them down.

"If we're lucky they'll fly first, before we even have to rope down." Jim, now in charge, gave Betsy and me our last briefing before he went up. "I'll throw the rope over first. Give me a tug when it touches the ground. Betsy can man the bottom end. You get out there at the bottom of the talus slope where you can see their flight if they go." His brisk commands were

Immature redtail hawk in training, still on a leash.

Merlin (first year)

Young goshawk, in training, eyes a tidbit.

Eyas falcon. They all look alike at this age.

Goshawk (first year)

DRAWINGS BY JONATHAN WILDE

punctuated by the rhythmic "kikikiks" of the eyasses.

It took Jim and Mark three-quarters of an hour to reach the top, using the same route I had taken. Meanwhile, Betsy scrambled up the talus to a ledge where it met the cliff face, and I watched the sights. The old female glided in, calling, and landed on one of the lookout posts where she sat fat and placid, with one foot tucked up. A raven drifted by, croaking. A flock of swifts screeched around the corner of the bluff. The brilliant high-country sun made everything shiny and almost too bright to watch so that, despite the anticipation, I almost dozed off. Then a whisper of sound reached my ears. Two insects on the cliff top were waving and shouting.

Something about the acoustics of the cliff made it impossible for Betsy to hear them; so, I had to relay their shouted instructions, the first of which was for her to take cover.

"Take cover!"

"What?"

"Get in the cave!" (me)

Betsy: "I can't hear them!"

Everybody: "GET IN THE CAVE!"

Seconds later, a whole dead piñon slid over the edge and crashed down. When the echoes died I nervously called, "Are you all right?"

"I can't hear you."

"ARE YOU ALL RIGHT?"

Jim and Mark abandoned the idiot attempts at communication for their next act, which was to toss a banner of beer cans and orange flagging over the edge on a rope and jingle it in the eyrie's mouth in hopes of spooking the children into their first flight. Instead of flying they shrieked and ran to the back of the cave. It was time to go over. But there was one problem not easily visible from below. The reason I had been unable to see the nest was that there was an overhang. We decided I would go up to Betsy's station at the top of the talus, where I'd swing Jim on the rope like the clapper on a bell until he could get purchase on the ledge.

Betsy started down over the boulders. Calm Jim, impatient as anyone now that the moment was at hand, dropped over the edge and started to swing himself in ten-foot arcs before I could even reach the rope. The shrieking attained a new crescendo, the old female stroked across the cliff face, adding to the din, and as Jim attempted to hook his boot heel on the ledge, first one, then the other little eyas flew. The first went right, the second (as I raced down the slope chasing the first) left. Things became frantic. I remember a confused mental image of madly flapping young birds erupting like flushed quail, of Jim spinning as he kicks ineffectually at the wall, and of Betsy, halfway down the talus shouting, "THERE IT GOES OVER THERE, IT'S STILL FLYING!" while all the time the alarm shrieks continue to come from the nest ledge. Then Jim somehow managed to get his foothold.

"You're not going to believe this. There are still two in here!"

"Falcons?" (Me, hoping for a hawk large enough to take grouse.)

"No, tiercels. A nest full of tiercels. And these two are still downy."

WE DECIDED TO LEAVE THE LITTLE ONES ALONE. JIM came down the rope to aid in the search for the others. We found the "number two" tiercel in five minutes, as he panted like a dog from his first flight. He sat owlishly upright in the grass until Jim picked him up and put him in the air-conditioned car. We still hoped the first flyer might be a falcon rather than a tiercel. Besides, even if it were the tiercel it appeared to be, we had to get it off the ground and back to its parents before night brought the coyotes and owls.

I spotted it watching us from a fallen boulder, but it flew again and vanished into a slope of shrubbery and tumbled rocks. We made a line up the slope, which was covered by a miserable tangle of cholla and juniper and yucca, and began a detailed examination of the terrain. Since Jim insisted that the bird could hide under a rock we had to look in every likely rattlesnake den that we passed.

We searched for hours. And hours. I had convinced myself that this bird was a female, decided that I wanted a male, and therefore only half-wanted to find it. This of course spurred my conscience and made me search even harder. A raven, apparently about the same age as the hawks, flapped clumsily to a boulder-top muttering adolescent defiance. Its mother circled anxiously overhead, croaking and gargling her distress until she attracted the attention of two kestrels who came out to harrass her, taking turns stooping and screeching as she protested: "Kleekleekleekleeklee! . . . Rhaagh . . . rlaagh!"

We quit the slopes as the shadows grew long and walked the grassy bottom. Suddenly the fourth indisputable tiercel materialized, sitting on a boulder again, watching our approach. I circled behind him while Jim stalked in with weary care, making magician's passes in the air to mesmerize him. When we were three feet away we both made dives at his feet. Jim connected, and in a second, I held my very first big native longwing, furious and shining and still bearing wisps of natal down.

We decided to keep him instead of his brother—he had flown further. We got the other bird out of the car and climbed the talus to the foot of the sheer cliff. Jim propped the remaining hunk of piñon below a pothole eight feet up the face, swarmed up it and slam-dunked the bird into the hole. He dropped and we ducked, hoping the bird would remain in that relatively safe spot at least until morning. Just as we were beginning to relax, he bolted out over our heads. This time he caught the evening updraft and soared to a pinnacle three-quarters of the way up the face, safer than we could have made him. As he flew we could see the old tiercel had joined the screaming falcon crossing and recrossing above.

"What happened? What's all the commotion?"

"You wouldn't believe it if I told you."

Stephen Bodio *grew up near Boston and attended Boston College and the University of Massachusetts. He has worked on a variety of jobs ranging from state survey rodman to peregrine falcon hacksite attendant to editorial associate of the scholarly quarterly* English Literary Renaissance. *He now lives in southwestern New Mexico.*

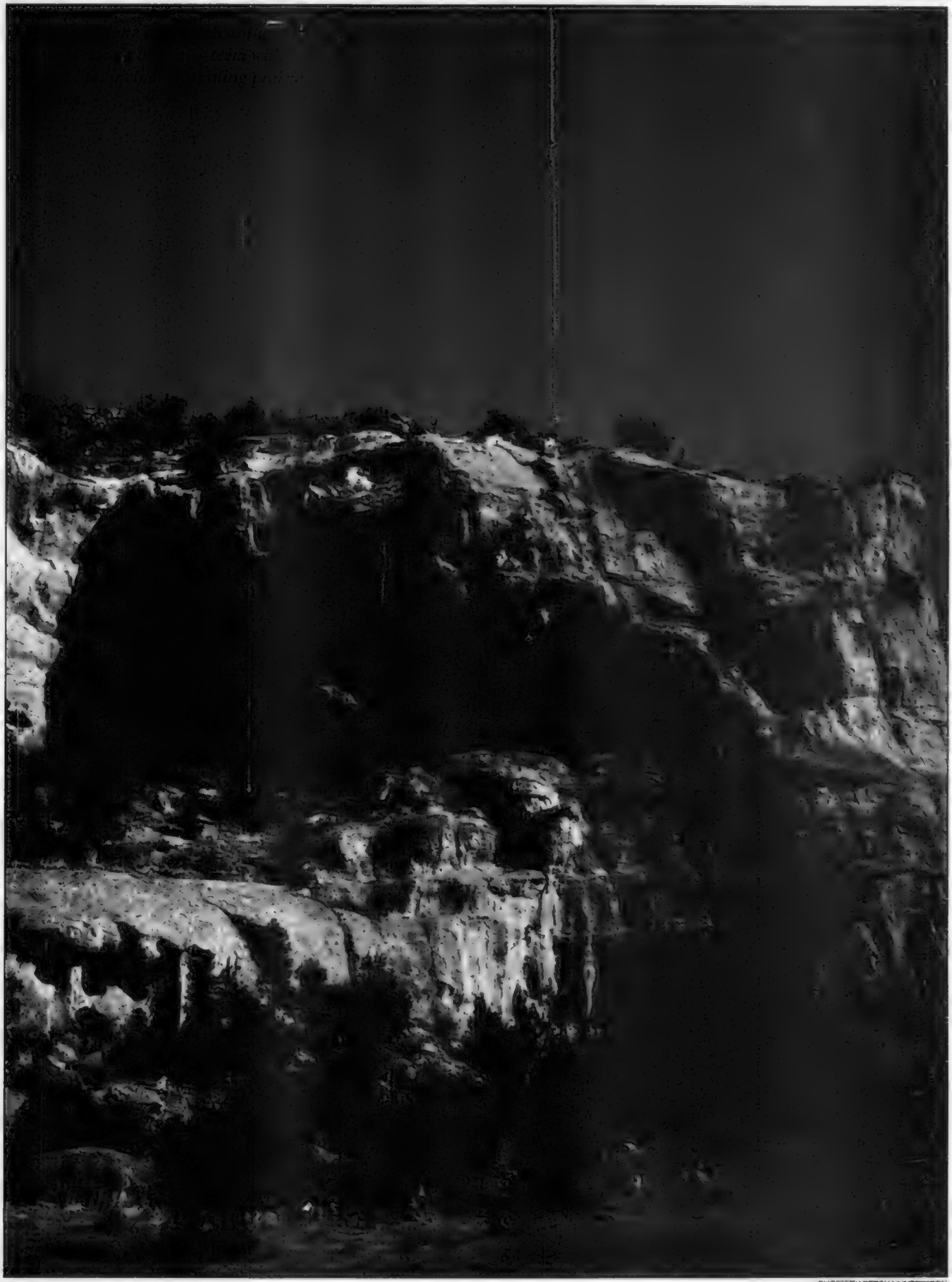


PHOTO BY BETSY HUNTINGTON

Hauling logs near Stillwater, Washington, locomotive 101 was a 2-8-2 Mikado, built by Baldwin of Philadelphia in 1913.

A REQUIEM FOR STEAM

The roar of fire and steam and moving steel thrilled the senses

by David Weitzman

AMIDST THE BRICK AND IRON PORCH-FRONTED VICTORIAN shops of Old Sacramento, the California State Railroad Museum is a celebration of steam power. It's a fitting site. Here the city began and here, at Front and I Streets back in 1863, Central Pacific Railroad crews laid the first rails for an iron road running eastward, up over the Sierra, then to a meeting at Promontory and beyond to the Atlantic. And it was here that CPRR No. 1, "Gov. Stanford," built by Richard Norris & Sons back in Philadelphia and shipped around the Horn, was placed on the new tracks. On this day another locomotive stands almost at that very spot. Number 3985, a massive Union Pacific Challenger, steamed, smoke billowing from its stack, awaits a string of a hundred freight cars, like the trains it used to haul over high mountain passes in the 1940s, which now will never come.

My son Peter is here to share one of his father's childhood joys and, as it turns out, some of the sadness. Neither of us is disappointed. From Portland has come Southern Pacific's "Daylight," garbed in silver, orange, and crimson shrouding. Children press both hands to their ears and squeal in mock terror when steam spurts suddenly from the cylinders, engulfing them in a cloud.

From Cheyenne, Wyoming, Union Pacific has sent one of its magnificent 4-8-4 Northerns (That's what it's called out here. In the East it would be a Niagara and down South, a Dixie.), and the Challenger, the show stealer at over a hundred feet long and weighing nearly a million pounds (not the heaviest locomotive ever built, but now the largest operating locomotive in the world). The Challenger's tender holds twenty-eight tons of coal—the total weight of the "Gov. Stanford" and its tender stacked with cord wood—which is consumed in the room-sized firebox in but a few hours.

But for some of us it's not all fun. As I watch the children pointing and laughing and touching the tons of bright steel, so carefully and tentatively at first, I'm touched by a sadness I've not felt before at a preservation fair. Preserving all those classic little engines over the years—that's history. But a Challenger and a Niagara? That's *my* life you're preserving! For the first time I can feel what an old-timer must feel returning to a familiar place now restored. It's very nice, he must think, all painted and fixed up and all, but it's so contrived, so self-consciously done. It was different, somehow, when I lived it. I'm feeling that way today about these wondrous machines from my childhood, now become artifacts, and about preservation. Restored houses and towns and bridges and locomotives are magic places showing us how life once was. They also remind

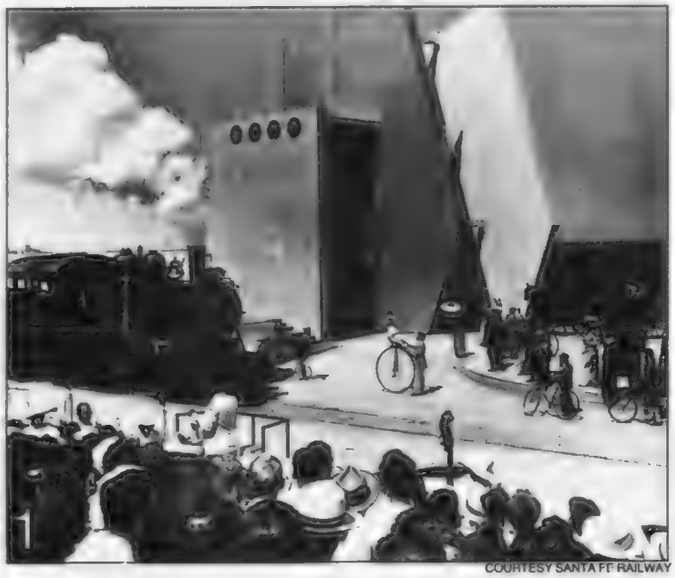
PHOTO BY DARIUS KINSEY. ALL KINSEY PHOTOS ARE FROM **THE LOCOMOTIVE PORTRAITS**. COURTESY OF PUBLISHER, CHRONICLE BOOKS, SAN FRANCISCO

us what's been lost. High up on the Challenger's smokebox the builder's plate catches my eye: 1936, the year I was born.

For generations the steam locomotive was a potent image in American lives. They are honest machines, showing every motion and action, the quintessence of power (only Superman, remember, was "more powerful than a speeding locomotive"). But they were also the stuff of kids' dreams and held a fascination for all ages that transcended their function as machines of transport. They were always more than that to the builders who crafted them, to the railroads that painted and made beautiful objects of them, to the crews who lavished care on them and looked after their needs as they might a fellow, to the youngsters who went down to the tracks to watch them steam by and to daydream of being an engineer. I built models of the locomotives whose pictures covered the walls of my room. My route to school and home was chosen to keep me the longest possible time in sight of the Chicago & Northwestern mainline where every few minutes high-wheeled Atlantics sped green coaches full of commuters toward Chicago's Loop. Steam locomotives were mine in the way, I imagine, they must have belonged to another generation back in the 1830s and 1840s. In one of those historical symmetries they reached their finest hour and then quickly faded the very same decades a century later, the decades of my youth.

For those who have known these locomotives, finding one in a park or on an abandoned railroad siding is always a history lesson. At first glance there is an overall impression revealing a locomotive's vintage, its use, its builder, all drawn in silvery-steel lines on soot black. Up close the whole dissolves into myriads of details. Fireboxes, cabs, drivers large (for fast passenger service) and small (for heavy freight hauls), rods and cranks, valve gear by Baker or Young or Walschaerts, hundreds of parts, each a chapter in the story of the locomotive's evolution from wood-burning teapots of timbers and cast iron to coal and oil-fired steel behemoths. It may seem a peculiar world to get all caught up in, but it's not that hard to understand, really. Anyone who delights in finding and distinguishing a transom from a fanlight or a bellcast hip from a Mansard roof knows what it's like.

ALL THIS WAS CERTAINLY MORE TRUE THROUGHOUT THE first forty years or so of American railroading. Then, the rake of a line, an ornamental headlight and bell bracket, smokestacks, cab windows, or engine and tender livery made a locomotive as much a Porter, a Baldwin, a Heisler, or a Ross Winans as a house was a Henry Hobson Richardson



COURTESY SANTA FE RAILWAY

PHOTO BY DAVID WEITZMAN

or a Richard Morris Hunt. They were given names evoking the countryside in which they worked. It's not hard to guess in what part of the country ran locomotives named "Colonel J.P. Taylor" and "Savannah" or "Granite State" and "Winnipiseogee" or "Hiawatha." Where else in the world but the American West would railroad men choose "Skaggs" and "Coffee Grinder" for locomotives that looked the part?

Types of locomotives were distinguished by names like Atlantic, Mountain, Columbia, Pacific, Mastodon, and Mikado (the first of which Baldwin built for the Nippon Railway in Japan). Later a classification system was devised, a series of numbers like 4-4-2 (Atlantic), 4-6-2 (Pacific), 2-6-0 (Mogul), 2-6-2 (Prairie), and 2-8-0 (Consolidation), indicating first the number of small wheels in the lead truck, then the number of drivers, and last, the wheels in the trailing truck. But still the names held on. Decorative motifs might be classical Roman or Greek, maybe Gothic, and the polished lacquer came in every hue from yellow to robin's-egg blue. Over one hundred and sixty locomotive builders turned out countless designs and modifications, and it's possible there were never two locomotives alike. In 1898 the Baldwin Locomotive Works advertised that they had on file in the drafting department "upwards of two thousand designs for locomotives . . . being added to at the rate of about one hundred and twenty-five complete designs a year."

"Where have they all gone?" "What's happpened to them?" At first the childrens' questions warm me. Here, after all these years, is still another generation wondering, caring about steam locomotives as I do. But as the day wears on, the questions become more and more troubling. What began as a celebration of steam becomes for me an inquest. The question of what happened to locomotives resolves into bigger questions about our compulsion to change, about the countless lives in which these machines once played such a vital part, about skills and jobs known and lost, about "progress" and preservation.

Thupp . . . shhhh . . . thupp . . shhh . . thupp . . . shhh. The measured throbbing of the Challenger's air compressors, the acrid coal smoke, and the steam lull me back to another event. The Chicago Railroad Fair was over thirty years ago, and I'm that much older now, but it comes back so clearly. A summer evening in the stands looking out over the "stage," the two tracks on which a railroad history pageant, an "ode to the railroads," was being played. In the final scene the "Pioneer," a tiny 4-2-0 that Chicago called its own, chuffed and clanked comically from the dark wings out onto the floodlit stage along

PHOTO BY DARIUS KINSEY. COURTESY CHRONICLE BOOKS

Possibly, there were never any two steam engines exactly the same.

1. At the 1948 Railroad Fair along the Lake Front in Chicago, spectators watched "Wheels-A-Rolling," an outdoor pageant that presented reenactments of great moments in the history of railroading in the United States. In this photograph, a small engine steams across the stage in a scene depicting Chicago's State Street in the Gay Nineties.

2. This bold engine (displayed at the California State Railroad Museum in Old Sacramento in 1981) used to pull one of Southern Pacific's orange-and-black **Daylight** *trains along the Pacific coast.*

3. H. K. Porter Company built this snubby little steam engine that was used in the logging industry in the Northwest. It is ready to dump its load of cedar bolts into a pond to be worked at the nearby mill.

the lakefront, as it had done a century before. Then, in eerie silence, a massive, towering form emerged from the darkened wings at the left. Slowly, slowly, its throttle barely open, a Union Pacific "Big Boy" (4-8-8-4) came out to meet Pioneer. The shrill squeak, squeak from Pioneer's polished little whistle pierced the air until the two locomotives met pilot to cowcatcher, when a shattering, continuous blast from the giant articulated's horn filled our ears and the night. I cheered, unaware that this ode to steam power was in reality a eulogy.

"HOW MANY ARE THERE, DAD?" MY SON PETER'S QUESTION speeds me back to the present.

"Articulateds? Oh, maybe a dozen. This Challenger, restored by Union Pacific employees, is the only one running, though."

"How many are left all told?"

"Of hundreds of thousands built over the years, perhaps four or five thousand are left, most of them outdoors rusting away. Every year many are restored to running order, but for most of them it's probably too late."

"I can't imagine a million pounds of steel being in too much danger."

"They certainly look indestructible, but they're not. The boiler is insulated with a thick asbestos lagging and then covered with a thin sheet-iron jacket, which is what we see. When the paint weathers off and the jacket rusts through, the lagging soaks up water like a sponge, and soon the locomotive's vitals—firebox, boiler tubes, boiler—rust away."

"But why did they end up like this?" Peter asks with the candor of a young historian who, happily, doesn't know that there are questions no longer asked.

"Well, after the war the railroads changed over to diesel-electric locomotives, slowly at first and then. . . . "

The answer comes easily but, somehow, it just doesn't make sense, not today anyway. Here we are celebrating a machine, a way of life really, the most prominent if not the most captivating symbol of America's industrial revolution, and yet we've allowed all but a figurative handful to be cut up, melted down, rolled, and stamped into insignificant gadgets. A century of the nation's genius, energies, and resources went into perfecting a motive force, only to be abandoned. That's what I'm having to explain to my son.

I was there when it happened, on a pleasant Sunday excursion. The occasion was the last steam run on the Monon from Chicago to Lafayette, Indiana, and I was just a couple of years younger than Peter is now. We stopped for a tour of the Gen-

Types of Steam Locomotives

AMERICAN 4-4-0 (1848)

MOGUL 2-6-0 (1850)

TEN-WHEELER 4-6-0 (1860)

CONSOLIDATION 2-8-0 (1870)

TWO-TRUCK SHAY (1883)

DECAPOD 2-10-0 (1890)

ATLANTIC 4-4-2 (1896)

PRAIRIE 2-6-2 (1896)

MIKADO 2-8-2 (1900)

PACIFIC 4-6-2 (1902)

SWITCHER 0-6-0 (1902)

ARTICULATED 2-6-6-2 (1906)

MOUNTAIN 4-8-2 (1910)

BERKSHIRE 2-8-4 (1925)

TEXAS 2-10-4 (1925)

HUDSON 4-6-4 (1927)

NORTHERN 4-8-4 (1927)

CHALLENGER 4-6-6-4 (1936)

1

COURTESY PENN CENTRAL

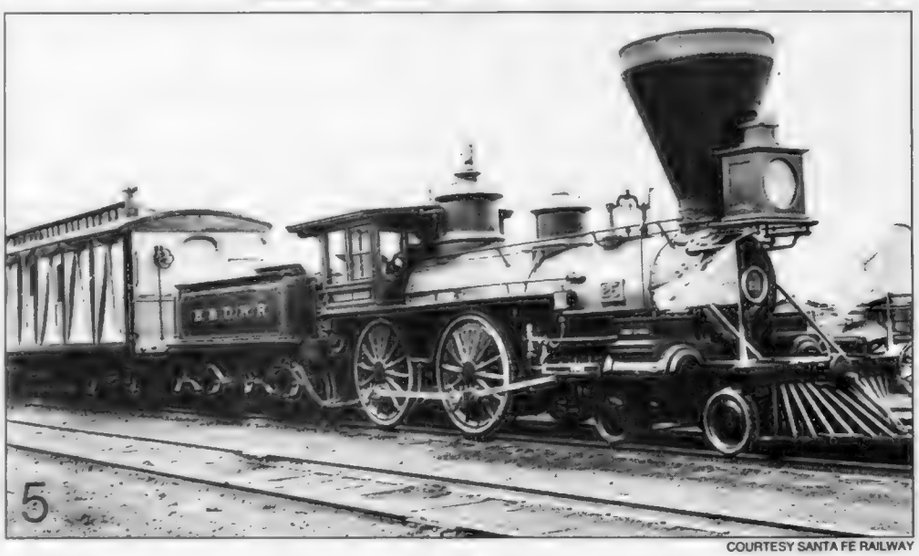
2

PHOTO BY DAVID WEITZMAN

COURTESY SANTA FE RAILWAY

4

COURTESY UNION PACIFIC RAILROAD


5

COURTESY SANTA FE RAILWAY

PHOTOS THIS PAGE BY DARIUS KINSEY. COURTESY CHRONICLE BOOKS

We've cut up our wonderful old steam engines into little gadgets.

1. The Whyte system of locomotive classification is based on the wheel arrangement: a series of numbers indicating first the number of small wheels in the lead truck, next the number of drivers, and then the wheels in the trailing truck.

2. Veteran of many freight hauls over the Rockies forty years ago, mighty Challenger #3985 is now based at the Union Pacific Roundhouse in Cheyenne, Wyoming, occasionally venturing out to pull excursion trains of railroad buffs.

3. Built in 1880, Santa Fe locomotive #137 was affectionately known as "Baby."

4. Designed and built for Union Pacific, engine #8444 was the last steam locomotive acquired by that railroad, in 1944. A Northern type (4-8-4), she pulled passenger trains in the West until the late fifties, when she hauled freight in Nebraska. Since 1960, #8444 has been used in the service of railroad buffs.

5. On display at the Chicago Railroad Fair in 1948, the "William Mason" (built in 1856) was locomotive #25 for the Baltimore & Ohio Railroad.

6. Built by Porter, this 2-6-2 side-tank engine began service in 1923 hauling lumber on the Olympic Peninsula.

7. In the English Lumber Company shop near Conway in northwestern Washington, the shop crew posed for master photographer Darius Kinsey around 1930. They are working on locomotive #12, built by Climax in 1920.

WHEN YOU GO

Built in 1943, the coal-burner Challenger #3985 is now based at the Union Pacific Roundhouse in Cheyenne, Wyoming. This type of steam locomotive was the fastest and most versatile freight engine owned by the U.P. Railroad. Number 3985 was retired in 1959. After restoration by volunteer U.P. workers in 1981, she appeared at the opening of the California State Railroad Museum in Sacramento that same year. Now, the Challenger makes two excursion trips a year, each sponsored by a railroad club. For information, write: The Rocky Mountain Railroad Club, P.O. Box 2391, Denver, Colorado 80201; and The National Railroad Historical Society, P.O. Box 5181, Terminal Annex, Denver, Colorado 80217.

Listed are some of the transportation museums in the West: "Age of Steam" Railroad Museum, Dallas, TX; Burlington–Rock Island Railroad Museum, Teague, TX; California State Railroad Museum, Sacramento, CA; Cimarron Valley Railroad Museum, Cushing, OK; Collier State Park Logging Museum, Chiloquin, OR; Colorado Railroad Museum, Golden, CO; Forney Transportation Museum, Denver, CO; Haskell Railroad Museum, Haskell, TX; Missouri & Arkansas Railroad Museum, Beaver, AR; National Museum of Transport, St. Louis, MO; Orange Empire Railway Museum, Perris, CA; Puget Sound Railway Museum, Snoqualmie, WA; Transportation Museum of Alaska, Palmer, AK; Union Pacific Historical Museum, Omaha, NE.

eral Motors Electro–Motive Division plant in La Grange. The significance of the juxtaposition was lost to me at the time, but I rode in the cab and thrilled to a new sound, the pulsing roar of diesel power in sleek, candy-colored streamlining. That was about 1950. Three years later, from the shops of the Norfolk & Western came the last steam locomotive built in America. Just a few years after that, they were all discarded and with them, a century-long experience central to the American soul. But that's *what* happened; Peter's asking *why*. My mind skipped around for an answer as clear as the boy's question.

For railroad historians it's a matter of engineering and economics. By the 1930s, fireboxes, boilers, and locomotives had grown to their practical limits. Engineers could not solve the problem of reciprocating main and side rods lifting and pounding the drivers up and down on the rails, harder and harder as locomotives got heavier and faster. Diesel parts, like automotive parts, could be standardized, mass produced, and stocked, unlike the one-of-a-kind parts that had to be fabricated and hand-fitted to one-of-a-kind locomotives. And diesels, the cost projections showed, would be cheaper by far for each unit of horsepower and more "available" (time on the job compared to time in the shop). Coal was the fuel of the grimy past, and oil was now the fuel of the streamlined future. And what's more, the argument continued, diesel fuel was cheaper and in endless supply.

But the American penchant for change is never explained entirely by formulas and statistics. If that last argument makes you suspicious of the others, you have good reason to be; these are not the only answers I would give my son. For instance, steam turbine locomotives—many of which were already on the rails as well as on drawing boards in the 1950s—offered promise of greater efficiency. Standardized parts and simpler construction were certainly virtues of the diesel locomotive but arguably, the only ones (and you'd have to ignore the elimination of hundreds of thousands of skilled metalworking jobs that haunts us to this day). Actually, diesels ended up costing two and one-half times as much per unit horsepower as steam.

And availability, the railroads' justification for the unexpected high costs? Well, there were the Niagaras, described by railroad historian John H. White of the Smithsonian's National Museum of American History as "possibly the ultimate in modern steam locomotive construction." Over a year of tests, the Niagaras were available more than seventy-five percent of the time—equal to the record of diesels! Steam locomotives were kept in service in Britain and Europe for another decade at least, pulling trains that American tourists returned to rave about. And recently, while traveling in the Peoples Republic of China, I lived several delightful days and nights in Pullman-

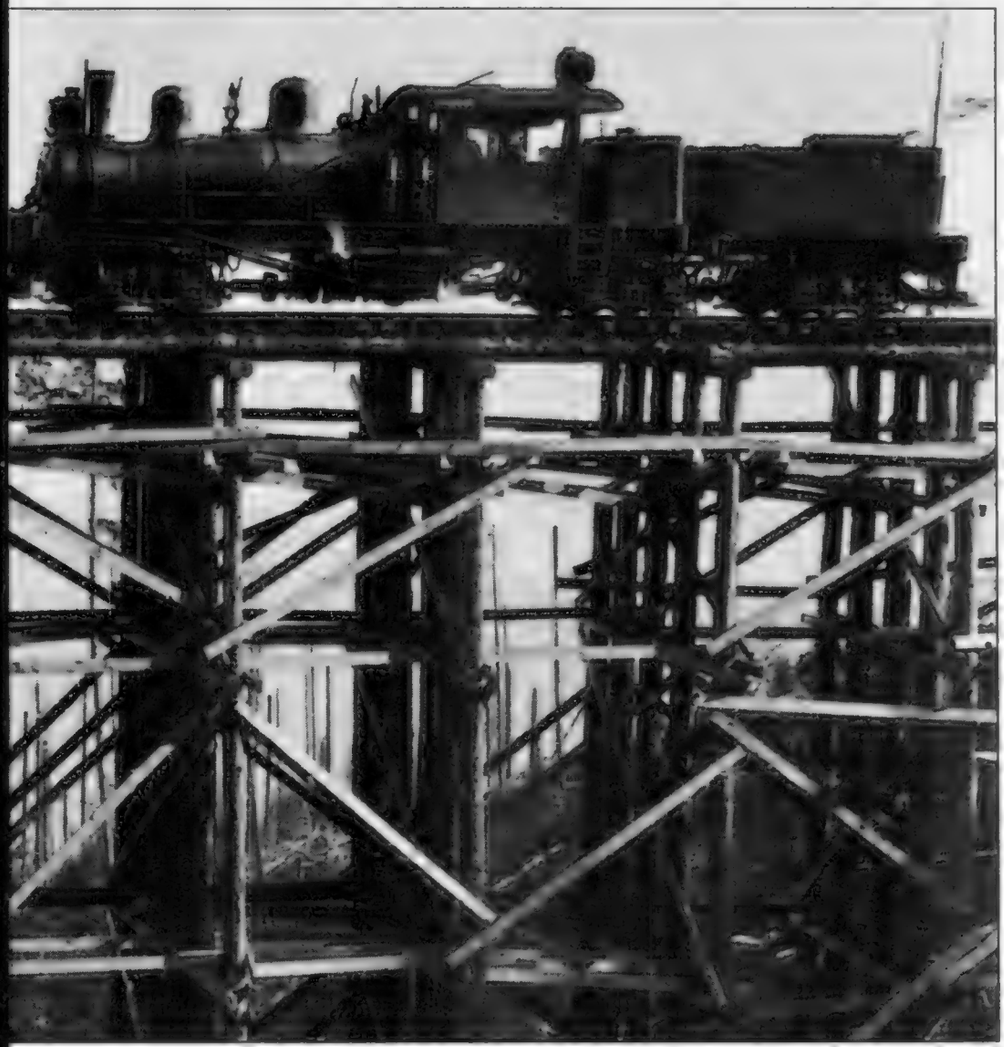


PHOTO BY DARIUS KINSEY. COURTESY CHRONICLE BOOKS

We discarded an experience vital to the well-being of the American soul.

On a trestle near the banks of the Skagit River in Washington, logging crews of the Clear Lake Lumber Company posed on their way to work. They are riding skeleton cars pushed by an eighty-ton Shay engine built by Lima Locomotive works in 1913.

like cars and elegant diners reminiscent of the 1940s, pulled by immaculately maintained American-made locomotives of that vintage. No, the answers are not simple ones, but neither are they to be found in the realm of numbers. The passing of a locomotive, historic building, bridge, windmill or any other past expression of American ingenuity has little if anything to do with its usefulness. That's what the locomotives teach us.

I have never told anyone before, but today I recall for my son a scenario I concocted back in the 1950s when one day I realized that the Atlantics and steam were gone forever. I envisioned historians in the 1980s (the farthest ahead I could even imagine then) puzzling over the decline of America's railroads. After going over and over all the figures, they could not find one reason, save for the curious fact that Americans had apparently just lost interest in trains. Here, I would step forward with the answer: We didn't care about efficiency, or operating costs, or availability statistics. Trains were transportation, to be sure, but much more. Walking through a station gate, you entered a magic world of steam locomotives and engineers and firemen who understood them and made them go (and whom we envied). Pullmans and coaches were places where you could daydream for hours, watching an ever-changing scene out the window, waiting for a sweeping curve when, pressing your forehead against the cool glass, you could see your own locomotive up ahead, smoke pouring back from its stack, drivers and rods and valve gear spinning a flashing blur of power. At that moment you were no longer in your seat but up in the cab, hand on the throttle, eyes darting to the gauges, waving now and then to children standing along the right of ways as you tugged on the whistle cord, motioning with a gloved hand to your fireman for more coal, the roar of fire and steam and moving steel filling your senses . . . .

PETER TOUCHES MY ARM, BRINGING ME BACK TO THE SCENE inside the museum. Before us is a shiny black and silver Southern Pacific cab-ahead 4-8-8-2, longer, even heavier than the Challenger outside, maybe the largest artifact inside any museum anywhere. Hundreds of youngsters and oldsters throng around the monster, touching the massive castings and steel rods, straining to comprehend its immensity. Then, turning, we can see behind us another historic locomotive, one of the first EMD E-9 diesel-electrics delivered back in the 1950s. Number 6051 gleams splendidly in its polished coat of colors like a jewel catching the overhead spots. But it stands alone with not one of the thousands of visitors even taking notice.

David Weitzman, *who lives in California, has written numerous books and articles about exploring and preserving the American past. His most recent book is an introduction to American industrial archeology for children,* Windmills, Bridges & Old Machines, *published by Scribner.*

SAM WELLER'S
ZION BOOK STORE

Specializing in
WESTERN
AMERICANA
since 1929

"If there is a book
you want,
any book,
ask us about it."

SAM WELLER'S
ZION BOOK STORE
254 South Main
Salt Lake City, UT 84101
(801) 328-2586

THE AMERICAN WEST
Kept neat and clean permanently
Magazines slip into these handsome files to become valuable reference volumes; to look like fine books on your library shelves. Leather-like, dark brown fronts are beautifully embossed in gold. Easily applied gold numbers are included for adding dates and volumes. One file holds two years (12) copies of THE AMERICAN WEST. Satisfaction guaranteed. Send check to:

THE HIGHSMITH CO.
Box 25W, Fort Atkinson,
Wisconsin 53538

One file $6.50 postpaid
Three or more $5.85 each

Western Books in Brief

These books may be purchased from your local bookstore. AMERICAN WEST does not sell them.

Arizona Memories *ed. by Anne Hodges Morgan and Rennard Strickland (University of Arizona Press, Tucson, 1984; 367 pp., index, $29.95).*
These firsthand accounts come from the people who have lived in Arizona over the past century. A Mormon woman recounts the tale of her husband's arrest for polygamy, a scientist tells how he discovered the planet Pluto, and a Navajo World War II code talker describes his wartime experiences. These memories and many more portray the diverse cultures that make up Arizona's heritage.

The Reservation Blackfeet, 1882–1945: A Photographic History of Cultural Survival *by William E. Farr (University of Washington Press, Seattle, 1984; 232 pp., illus., maps, biblio., index, $19.95).*
Posed and candid shots of Montana's Blackfeet Indians reveal a cultural transition through the years. Early photos depict families clustered around tipi villages, soccer games at the reservation school, and Blackfeet decked in full regalia. Despite efforts to blend the Blackfeet's culture into the American melting pot, these photographs show that traditional tribal practices and dress persisted into the twentieth century.

An Editor on the Comstock Lode *by Wells Drury (First published in 1936; University of Nevada Press, Reno, 1984; 343 pp., illus., index, paper $10.95).*
"The Fighting Editor of the Comstock," as Drury was called, tells exciting and hilarious stories about the people he encountered while working for the Gold Hill *News* in western Nevada from 1874 to 1888. The Comstock mining center was a lively area, filled with characters like John Mackay and the stagecoach robber known as Nickanora, "The Spanish King." Drury, never shy about expressing his opinions, depicts wild and colorful goings-on in the frontier mining towns, where he fought with his pen rather than a pistol.

We Belong to the Land: Memories of a Midwesterner *by Beulah Meier Pelton (Iowa State University Press, Ames, 1984; 220 pp., illus., $16.95).*
Pelton, a farmer's daughter and a farmer's wife, celebrates her close relationship with the Iowa farmland. She writes with warmth and humor about day-to-day crises and struggles with nature, and the caprices of a landlord. Although farm life demands hard work and often lacks financial rewards, there is more than compensation for her in the joy and satisfaction of living with and off the land.

People of the Moonshell: A Western River Journal *by Nancy M. Peterson, illus. by Asa Battles (Renaissance House, Frederick, Colorado, 1984; 176 pp., index, biblio., cloth $22.95, paper $14.95).*
The Platte, known to some of the plains tribes as the Moonshell, has been a river of history. Long known to Indians, it later was followed by white explorers, fur men, and settlers. This book deals with the Indians and relates the stories of Spanish conquistadors, French trappers, and numerous American pioneers who traveled the river's length on their way west. Many who followed the Platte did not survive the journey that was often made perilous by harsh climate and conflict with Indians.

Horse Sense *by Willard Leonard (Oregon Historical Society, Portland, 1984; 142 pp., illus., glossary, paper $9.95).*
With an earthy wit, Leonard recalls his days early in this century growing up and working as a cowboy in eastern Oregon. His stories are flavored with tall tales, on-the-range know-how, and bits of Western history. Included are detailed instructions for training a horse and accounts of painfully learned lessons concerning what not to do while in the saddle.

Frontier *by Louis L'Amour, photo. by David Muench (Bantam Books, New York, 1984; 220 pp., illus., $29.95).*
Spectacular photographs of desert vistas, mountain streams, and lofty forests in the United States accompany Louis L'Amour's essays on westward expansion and his own experiences in the West. In his first work of nonfiction, L'Amour expresses the reverence for nature that Muench's breathtaking photographs inspire. He writes about the Indians, the explorers, and the pioneer settlers who knew the magnificent landscape pictured by Muench.

Walking Up and Down in the World: Memories of a Mountain Rambler *by Smoke Blanchard (Sierra Club Books, San*

Francisco, 1985; 320 pp., illus., maps, $15.95).

Blanchard, a noted mountain guide and trek leader, spins entertaining tales of a lifetime of climbing and hiking in the West and other parts of the world. His adventures, told with the humor and excitement of a skilled raconteur, include clambering over a slick glacier in the dark, and waking up to find a bear in camp. Mountaineering, Blanchard feels, should be regarded as a combination picnic and pilgrimage, a sport accessible to both the expert climber and the novice walker.

Big Bear: The End of Freedom *by Hugh A. Dempsey (University of Nebraska Press, Lincoln, 1984; 227 pp., illus., maps, notes, biblio., index, $22.95).*

In this moving biography, Dempsey, a noted Canadian authority on Indians, relates the struggles of a nineteenth century Cree chief for freedom and justice. Sympathetic to the plight of Big Bear and his people, the author portrays the chief as a spiritual man with foresight, who labors to keep his tribe united against the encroachment of the white man on Indian hunting grounds. The book provides a wealth of information about the Crees' traditional life on the plains, making their losses appear all the more tragic.

Women and Indians on the Frontier, 1825–1915 *by Glenda Riley (University of New Mexico Press, Albuquerque, 1984; 352 pp., illus., notes, index, cloth $24.95, paper $12.95).*

Nineteenth century women who traveled to the West with their husbands and families came prepared to find a harsh land populated by bloodthirsty, savage Indians. As white women came to know Indians, many of their preconceptions disappeared and they formed more favorable opinions of them. Absorbing and informative, this book contrasts the views of pioneer men with those of pioneer women and reveals new facets of the relationship between white people and Indians.

Roadside History of Colorado *by James McTighe (Johnson Books, Boulder, Colorado, 1984; 354 pp., illus., maps, index, biblio., paper $9.95).*

Highway travel in Colorado will never be dull with this gold mine of state history close at hand. Motorists can learn where such pioneer personalities as "Rocky Mountain Jim" lived, and how a toothache prompted the discovery of Marshall Pass. Using mileage markers for reference to historical sites, the guide points out boomtowns and bust-towns where outlaws, fearless cowboys, and other Western characters once held sway.

COLORADO
GUEST RANCHES

Legendary locations.
Pioneer traditions.
Family Hospitality.

Free color directory of accredited ranches.

Colorado Dude & Guest Ranch Association

P.O. Box 300W • Tabernash, CO 80478

EDWARD S. CURTIS GALLERY

Three Eagles 1910

Originals printed before 1930

- photogravures
- goldtones
- silvers
- volumes
- portfolios
- appraisals

Museum & Gallery Exhibitions

OWN A PART OF THIS EXTRAORDINARY WORK

Kirk A. Rudy, Owner Director
specializing in Curtis since 1972

• For appointment please phone •
390 Panoramic Highway
Mill Valley, CA 94941 (415) 383-1747

There's only one train to Toltec.

And it's a special journey into yesterday. This enchanting narrow-gauge steam railroad (jointly-owned by the states of New Mexico and Colorado) meanders 64 miles thru the Scenic Rockies, tunnels, gorges, breathtaking trestles, awesome peaks and valleys. Running every day June 15 thru October 13 from Chama, New Mexico, and Antonito, Colorado. It's America's longest and highest narrow-gauge steam railroad.

Make this adventure a part of your vacation **this summer!** Send the coupon or call 505/756-2151.

Cumbres & Toltec Scenic Railroad

To: **Cumbres & Toltec Scenic Railroad**
Box 789H1, Chama, New Mexico 87520

Send **free brochure** about different fun rides, schedules and fares to:

Name _____

Street _____

City/State/Zip _____

Books

Stairway Walks in San Francisco *by Adah Bakalinsky, illus. by Trudie Douglas (Lexikos, San Francisco, 1984; 96 pp., illus., maps, appendix, paper $6.95).*

Those steep and winding hills in San Francisco might daunt the most intrepid walker, were it not for the more than two hundred public stairways sprinkled throughout the city. This book maps out a delightfully different way to see the sights while learning about the unique flavor of each neighborhood. The twenty-six walks offer stunning vistas over many areas unseen by most visitors to the city.

Bummer & Lazarus: San Francisco's Famous Dogs *by Malcolm E. Barker (London-born Publications, Box 42278, San Francisco, California 94101, 1984; 96 pp., illus., glossary, biblio., cloth $12.95, paper $6.95).*

Dubbed the Damon and Pythias of San Francisco for their close friendship, the stray dogs Bummer and Lazarus roamed the city streets during the early 1860s. Reproduced here are tongue-in-cheek newspaper clippings celebrating the touching companionship between the two homely but likable mutts, who captured the hearts of San Franciscans with their lively antics. To enhance this story, the author also provides a narrative guide to the life

© 1984 MALCOLM E. BARKER

and times of the beloved dogs. Original nineteenth century lithographs by Edward Jump add interest and humor to this engaging tale.

Sketchbook: A Memoir of the 1930s and the Northwest School *by William Cumming (University of Washington Press, Seattle, 1984; 288 pp., illus., $6.95).*

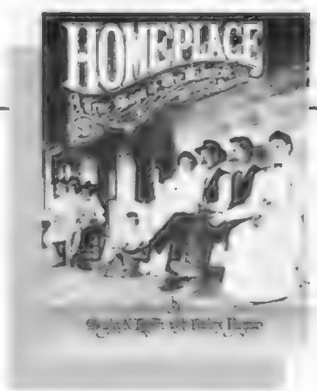
Cumming, an artist and teacher in Washington, was one of the founders of the Northwest School of art. Supported by the Works Progress Administration during the Depression, members of the School created pioneering works that introduced a new era in the region's art. Cumming looks at the political and cultural climate of the time and how it influenced him and his fellow artists.

The Shoshoni-Crow Sun Dance *by Fred W. Voget (University of Oklahoma Press, Norman, 1984; 340 pp., illus., maps, notes, biblio., index, $19.95).*

After abandoning the Sun Dance for over sixty years, the Crow Indians once again took up the ritual in 1941, basing their version on that of the Shoshonis of the Wind River reservation. Voget gives a brief history of the Crow people, and describes their traditional culture and society. He explains the symbolism and significance of the ceremonial practices surrounding the Sun Dance and shows how its spirituality helps unify the Crows through a shared belief.

New Light on Chaco Canyon *ed. by David Grant Noble (University of Washington Press, Seattle, 1984; 108 pp., illus., index, paper $10.95).*

The discoveries described in this book add a significant number of pieces to our knowledge of the awesome pre-Columbian Anasazi ruins in Chaco Canyon in northwestern New Mexico. Archeologists now speculate that the highly advanced towns could have constituted a center for pilgrimages. This theory would help explain the major ancient roadways leading to the canyon and the great number of living quarters in an area unable to support a large population. Photographs of the buildings and artifacts illustrate the intriguing text.



HOMEPLACE

by Stanley N. Moffet & Marlene Ritzman

257 pages easy reading 12 pt. type. A true story of families from Kentucky, Tennessee, Ohio, Vermont, Connecticut, Texas, and Illinois. Effects of Civil War. Complete Index. Many photos, maps and letters verifying statements. 1782 to 1935.

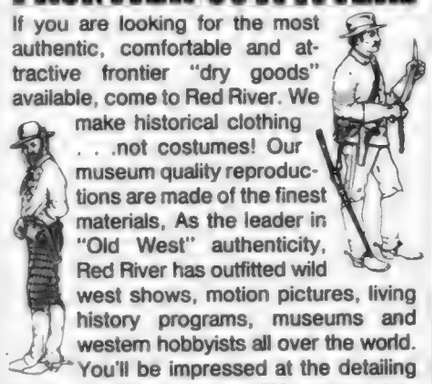
$23.50 Postpaid from

SNM Publishing Co.

P.O. Box 29
Larned, Kansas 67550

RED RIVER
FRONTIER OUTFITTERS

If you are looking for the most authentic, comfortable and attractive frontier "dry goods" available, come to Red River. We make historical clothing . . .not costumes! Our museum quality reproductions are made of the finest materials. As the leader in "Old West" authenticity, Red River has outfitted wild west shows, motion pictures, living history programs, museums and western hobbyists all over the world. You'll be impressed at the detailing in our made-to-order 1870s styled bib-front, sutler, 49er style yoke, shirts, in wool or washable cotton—uniform parts for the 1876 and 1885 cavalry trooper—hat cords, campaign shirts, cotton dusters, holsters, horse equipment, saber knots—frontier style holsters, cartridge belts, cuffs, vests, trousers, and much more.



For Complete Pictorial Catalog Send $3 to:
RED RIVER
8348 Foothill Blvd., Dept. AW
Sunland, CA 91040

DREAM GARDEN PRESS

is pleased to announce
the publication of

THE LEATHER THRONE

by Owen Ulph

The wait is finally over for this eagerly anticipated account of the daily life, routine and adventure of the real cowboy. Clarus Backes calls it "an absolute delight . . . it already has my vote as one of the best books of the year."

$19.95, clothbound, 480 pages.
$45.00, 100-copy signed, limited edition.

And don't miss Ulph's
THE FIDDLEBACK
$6.95, trade paperback

Available at bookstores
and from the publisher

Dream Garden Press
1199 Iola Avenue
Salt Lake City, Utah 84104

Historical Atlas of the Outlaw West *by Richard Patterson (Johnson Books, Boulder, Colorado, 1985; 250 pp., illus., maps, notes, biblio., index, paper $14.95).*
Renegades and bad guys range from Robbers' Roost, Utah, to Langtry, Texas, in this guide to the haunts of the outlaws of the West. Stories of famous and not-so-famous shootouts between lawmen and gunmen that occurred in many of the small towns across the West are told in detail. The author also tells visitors where they can find present-day memorials to many of these violent events of the past.

The Legacy *by Peter L. McNair (University of Washington Press, Seattle, 1984; 194 pp., illus., biblio., appendixes, paper $14.95).*
The best of Northwest Coast Indian art from the great collection of the British Columbia Provincial Museum is represented here. Vivid, strongly colored masks, totem poles, and other artifacts are superbly reproduced. An authoritative text explains the symbolism of specific motifs. The book includes pieces by modern artists, designed in the traditional style of ancient Northwest Indian art.

Ambrose Bierce: The Making of a Misanthrope *by Richard Saunders (Chronicle Books, San Francisco, 1985; 120 pp., illus., biblio., index, paper $7.95).*
Bierce's savage satire was first felt publically in his San Francisco newspaper column. Bierce attacked the hypocrisy and corruption he saw in the changing political climate in the second half of the nineteenth century. The author tells the story of this iconoclast's life, drawing on excerpts from Bierce's columns and venomous *Devil's Dictionary* to convey the writer's sarcastic wit. A master of the short story, on a level with Poe and O. Henry, the eccentric Bierce lived a troubled, chaotic life that makes fascinating reading.

Wings Over the Mexican Border: Pioneer Military Aviation in the Big Bend *by Kenneth Baxter Ragsdale (University of Texas Press, Austin, 1985; 288 pp., illus., biblio., index, $24.00).*
In 1929, the Army Air Corps established an emergency landing field on Elmo Johnson's ranch in the Big Bend area of southwestern Texas. Close to the international border, the airfield at Johnson's ranch provided security and also served as a testing ground for combat aviation. This book traces the development of military aviation from its fledgling stages in the early 1930s to the full-scale use of fighter planes in World War II.

Carl Gorman's World *by Henry and Georgia Greenberg (University of New Mexico Press, Albuquerque, 1984; 201 pp., illus., index, glossary, $45.00).*
Famed Navajo artist Carl Gorman, father of R.C. Gorman, has been a university instructor, a World War II code talker, and a leader of Navajo people in Los Angeles. Gorman's interesting biography recounts his attainment of recognition as a major artist, admired for his strongly colored depictions of Indian life. Deeply loyal to Navajo traditions, Gorman strives to preserve them while also helping his fellow Navajos adjust to life away from the reservation.

Journal of a Mountain Man *by James Clyman, ed. by Linda M. Hasselstrom (Mountain Press, Missoula, Montana, 1984; 295 pp., map, notes, biblio., index, cloth $24.95, paper $9.95).*
One of the most colorful of all the mountain men, James Clyman was present at many historic events during the opening of the West, including the discovery of South Pass in 1824. Clyman also read Shakespeare and kept detailed diaries of his widespread travels that became basic resource documents of Western historians. This reprint of his journals, with notes by Hasselstrom, recounts again Clyman's adventures over many years in different parts of the West.

N e w B i s o n B o o k s

Peoples of Prehistoric South Dakota
By Larry J. Zimmerman

This book is a brief, illustrated introduction to the earliest people to live in what is now South Dakota. Beginning 14,000 years ago and continuing to the 18th century, *Peoples of Prehistoric South Dakota* deals with the methods and problems of archaeology nearly as much as with people, because archaeology is the primary source of information about these ancient Indians.

ca. 128 pages. 13 b&w photographs, 40 illustrations, 13 maps.
ISBN 0-8032-4903-9 **$14.95** tent.

The Tourist
Travel in Twentieth-Century North America
By John A. Jakle

Here is a fast-paced and thorough survey of the tourist industry in the United States and Canada and its development in this century. Tourism is an optimist's profession—the object is to take some place and find some way to make it attractive, and John Jakle carefully examines the American appetite for seeing and being someplace else.

xiv, 382 pages. 35 b&w illustrations.
Cloth, ISBN 0-8032-2564-4 **$24.95**
Paper, ISBN 0-8032-7561-7, BB 891 **$12.95**

The Manly-Hearted Woman
By Frederick Manfred
Foreword by Mick McAllister

"Strange and haunting. . . . We are totally enclosed in an Indian world."—James R. Frakes, *New York Times Book Review.*

xvii, 185 pages.
Cloth, ISBN 0-8032-3902-3 **$16.50**
Paper, ISBN 0-8032-8127-7, BB 893 **$6.50**

The Land That Never Was
By Alyse Simpson
Foreword by Dane Kennedy

"This book offers an intriguing, intimate view of the difficulties of 'homesteading' in Africa early in this century and affords exciting possibilities for comparison with the experiences of women in the American West."—Dane Kennedy.

ca. 275 pages.
Cloth, ISBN 0-8032-4149-6 **$21.50**
Paper, ISBN 0-8032-9146-9, BB 874 **$7.95**

Next Year Will Be Better
By Hylda Richards
Foreword by Elspeth Huxley

This is the story of Hylda Richards and her husband who, after nearly starving on a farm in Kent, acquired a block of virgin land in Rhodesia, cleared the bush, ploughed with untrained oxen, and learned to work with native labor.

230 pages.
Cloth, ISBN 0-8032-3869-X **$18.50**
Paper, ISBN 0-8032-8915-4, BB 869 **$6.95**

Sheridan's Troopers on the Borders
A Winter Campaign on the Plains
By DeBenneville Randolph Keim
Foreword by Paul Andrew Hutton

"With *Sheridan's Troopers on the Borders*, Keim left a valuable historical legacy for posterity."—Paul Andrew Hutton.

xxii, 308 pages. 7 b&w illustrations.
Paper, ISBN 0-8032-7755-5, BB 899 **$7.95**

The River's in My Blood
Riverboat Pilots Tell Their Stories
By Jane Curry

"Containing both solid history and folklore, *The River's in My Blood* is a delightful review of the role played by riverboat pilots in twentieth-century America."—John F. Stover, *Western Historical Quarterly.*

xx, 288 pages. 13 line drawings, 16 b&w photos, 2 maps.
Cloth, ISBN 0-8032-1416-2 **$17.50**
Paper, ISBN 0-8032-6316-3, BB 916 **$7.95**

UNIVERSITY OF NEBRASKA PRESS
901 North 17th Lincoln, NE 68588

THIRD ANNUAL PHOTO CONTEST

1984 Second Place Winner in the People category by Robert Rozinski of Denver, Colorado.

American West's readers are invited to interpret the traditional and changing West of 1985.

That's the theme for our Third Annual Photography contest. Get out your cameras and start looking for those people, places, animals, or things that speak to you of the West—traditional or changing. Photographs will be judged on originality and quality.

The Grand Prize Winner of our Third Annual Photography Contest will receive an AMERICAN WEST tour for two people—his or her choice of one of the following: Southwest Indian Lands, 12 days, beginning and ending in Albuquerque, New Mexico; or National Parks of the Rockies, 13 days, beginning in Jackson, Wyoming, and ending in Great Falls, Montana; or Idaho Scenic Adventure, 8 days, beginning in Spokane, Washington, and ending in Boise, Idaho. Tour operator is Maupintour. The value of one of these tours for two is as much as $2,500. Transportation to and from a tour will not be provided. The preceding information is based on 1985 tours. Tours in 1986 may vary.

Deadline for entries is September 16, 1985. Read the Contest Rules and get your entries in early. Winners will be announced in the January/February 1986 issue of AMERICAN WEST.

CONTEST RULES

ELIGIBILITY

The contest is open to everyone except employees of AMERICAN WEST and their relatives. All entries must be available to the magazine for use on a first-right basis; previously published photos or ones pending publication will not qualify. AMERICAN WEST acquires the right to publish, use for exhibit or promotion, all winning photographs.

ENTRIES

You may submit up to 5 entries which will be judged on originality and quality. Be sure to enclose the official entry form (or a 3" by 5" facsimile) with your name, address, phone number, and total number of photographs entered. There is a single entry fee of $5 per participant, whether you enter one or five photos. Make check or money order payable to "AMERICAN WEST Photo."

Photographs may be either black and white or color, and are not to exceed 8"x10" in size. Please do *not* send slides. Do *not* send photos mounted in glass. If your color photograph is judged a winner, you will need to provide a color transparency to AMERICAN WEST.

Each entry must be clearly marked on the back with the name, address, and telephone number of the photographer, the place the photo was taken, and if possible the type of camera and film used, along with any special lenses, equipment, or techniques. Model releases must accompany all photos that include identifiable people.

LIABILITY

A stamped, self-adressed envelope of sufficient size must accompany your entries for their return. Include cardboard to protect your photos. AMERICAN WEST is not responsible for materials lost or damaged in the mail.

DEADLINE

Your entry must be postmarked by midnight of September 16, 1985. Late entries will be returned unopened. Send to: AMERICAN WEST Photo Contest, 3033 N. Campbell, Tucson, AZ 85719.

1985 AMERICAN WEST PHOTOGRAPHY CONTEST

Official Entry

Name _____

Address _____

City _____

State _____ Zip _____

Phone _____

Number of entries _____

Enclose $5 entry fee.
Please read the Contest Rules carefully.

Eagle Mountain

OUTFITTERS

A WESTERN HORSEBACK ADVENTURE

This year take the trip you've always dreamed of... Watching sunrises on early misty mornings... Fishing clear mountain lakes... Photographing sunny snow-capped peaks... Quietly sharing star-filled evenings... Crackling campfires...

P.O. BOX 1, OVANDO, MT 59854
(406) 793-5618

DON'T MOVE!

Don't move until you've told us your new address. Please give us eight weeks to change your address. Just attach your label below, and fill in your new address.

NEW ADDRESS

Name _____ (Please print)

Address _____

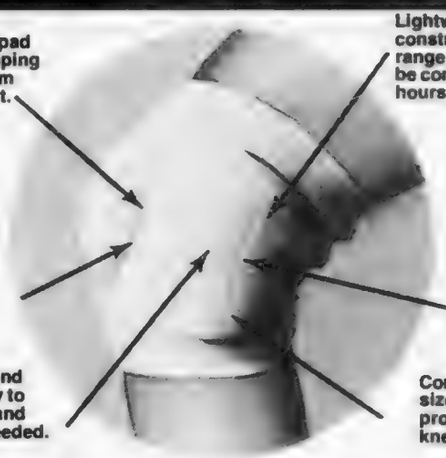
City _____ State _____ Zip _____

ATTACH LABEL HERE

Mail to:
American West Subscription Service
Box 1960
Marion, OH 43305

When your knees go bad...you're in trouble!

Now thanks to Coach "Cotton" Barlow, there's an answer!


Custom form fitting pad design prevents slipping and affords maximum mobility and comfort.
Lightweight non-metal construction allows full range of motion and can be comfortably worn for hours.
Improves knee function and relieves discomfort.
Patented material insulates, warms and soothes knee joint.
Adds strength and stability directly to where support and protection is needed.
Comes in 5 different sizes to ensure proper fit for either knee.

Nobody knows more about crippling knee pain, stiffness and strain than "Cotton" Barlow.

The veteran football coach has seen plenty of it in his years on and off the field.

He's also discovered that ordinary knee supports and elastic bandages just can't do the job. So he finally set to work to find a way to add strength and stability directly to the joint where support and protection are needed most.

FOR PEOPLE OF ALL AGES

Today, thanks to his unique invention, thousands of men, women and children of all ages lead active, pain-free lives despite serious knee problems.

Coach Barlow's fantastic invention uses no metal yet it provides maximum lateral and cap support. This incredibly lightweight support absorbs shocks and prevents twisting. And the BARLOW™ knee support provides soothing warmth to injured or arthritic joints.

So comfortable you can wear it for hours and non-allergenic too. Choose from five sizes for your perfect fit.

NO RISK OFFER

We urge you to try Coach Barlow's remarkable knee support for 30 days. If it doesn't bring you pain-free relief, we'll refund your purchase price without question.

Don't let the pain and anxiety of "bad" knees get you down. Order today. Specify size in coupon below.

WHAT MEN AND WOMEN OF ALL AGES SAY:

"I'm 80 years old and certainly not an athlete . . . but now I can garden again and be active 'cause I wear your brace." L.W. Oconto Falls, WI

"At first I wasn't sure . . . now I want a brace for the other knee. I've had knee problems for the last 5 years. I only wish I had known of this brace 5 years ago. I'm so grateful. Thank you." J.N. Hartwell, GA

"This support is a great help to me. I could hardly get around before I got it. Thank you." A.J. Springfield, OR

© 1985 BARLOW INC.

BARLOW™ INC., Dept. AW055
406 So. Ella, Sandpoint, Idaho 83864

Enclosed please find $_____ for _____ BARLOW knee supports.

☐ One BARLOW knee support $19.95 plus $1.50 Shpg. & Hdlg.
☐ Two BARLOW knee supports $39.90 plus $2.50 Shpg. & Hdlg.

Enclosed is my ☐ Check ☐ Money Order or Charge my ☐ Visa ☐ Mastercard.
Credit Card Customers call NOW! Toll Free 1-800-824-7888 Operator #115

Card No. _____ Exp. Date _____

FOR CORRECT SIZE
Measure around the knee, one inch above the knee cap.
CIRCLE ONE
(SM under 15") (MED 15" to under 17") (LG 17" to under 19") (XL 19" to under 21") (XXL 21" and over). If in doubt, send exact measurement _____.
(circle one)

Mr./Mrs./Ms. _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

When in Sandpoint, visit Barlow Inc.

CLASSIFIED

A
Month-long
Festival
of
Exhibits
and
Performances

Celebration ARTS

JUNE 1985

ALBUQUERQUE

CELEBRATION OF THE ARTS
220 GOLD SW
ALBUQUERQUE, NEW MEXICO 87102
505/843-7657

NEW MEXICO USA

GIFT SPECIAL!

AMERICAN ANTIQUES CATALOG
by Wm. C. Ketchum, Jr.
384 Pages with over 2000 photos;
32 Pages in Full Color!
Hard Cover, 9" x 11" in size.

Now Thru June 30, 1985-$18.75
BONUS OFFER! ONLY $8.95
with each American Antiques order
American Collectibles Catalog—
hard cover—320 pages—32 color

Please send _____ copy(ies) at $18.75
and _____ copy(ies) of Bonus Offer at $8.95

MAIL TO:
THE GEORGETOWN GROUP Dept. AW
P.O. Box 597
Georgetown, CT 06829
(ADD APPLICABLE TAX)

Picture Summer in Steamboat Springs...
COLORADO PRIME

Vacation this summer with friendly people, in a lush green valley, surrounded by outrageous scenery. For information on events, activities, and accommodations:
Steamboat Springs Chamber/Resort Association
PO Box 774408, Steamboat Springs, Colorado 80477
(303) 879-0740 / in Colorado (800) 332-3204

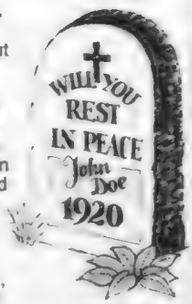
IN THE TRADITION OF THE OLD WEST . . . We will share with you a wonderful spot remover whose formula has been passed down in our family from generation to generation. **It cleans all kinds of natural fabrics — furniture, carpets, and clothing — and it works wonders on scuff marks on floors, boil-overs on stoves, and much more. It is especially effective on grime and food spots and spills.** It leaves no rings and can be used as a prewash. **Money back guarantee.** Send $4.00 to Pride Products Co., P.O. Box 1639, Sun City, AZ 85372 for concentrate to make one quart. Save $2.00 and send $10.00 for three quarts. Allow four to six weeks for delivery.

Jackson Hole, Wyoming
Condominium rentals to fit every budget. Nestled at the base of the Teton Mountain Range adjacent to Grand Teton National Park. Enjoy swimming and tennis, take a ride on the aerial tram or visit Yellowstone National Park. Relax in an atmosphere of The Old West and truly be CLOSE to the *action* yet *far* from the *crowds*. Jackson Hole Realty Property Management, P.O. Box 56A, Teton Village, WY 83025, call: 307-733-7945, Toll-free 800-443-8613.

JACKSON HOLE

DON'T DIE WITHOUT A WILL

No one should be without a will. You can prepare your own — without a lawyer. This valuable kit includes simple instructions, two sample wills, answers to common questions about wills and a form to complete your own will. Send only $5 plus $1 postage and handling to: HSC, Inc., Dept. V, 79 W. Union St., Wilkes-Barre, PA 18702



ATTENTION GUN COLLECTORS & WESTERN HISTORIANS

I am the owner of a gun once belonging to Frank Gilmore, Deputy Sheriff of Laramie, WY. If you have any information on him please write: **Nicholas Swesel,** 2059 S. 7th St., Milwaukee, WI 53204.

WANTED TO PURCHASE OLD WESTERN ART

Original Paintings, Bronzes, Watercolors, etc. by Remington, Russell, Couse, Ufer, Seltzer etc. One of America's Most Select Collections of Western Art:

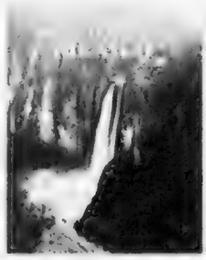
Bought & Sold
SINGLE & COLLECTIONS PURCHASED

J. N. BARTFIELD GALLERIES, Est. 1937
47 West 57th St. New York, N.Y. 10019 PH: (212) 753-1830.

OUT-OF-PRINT WESTERN BOOKS

Ranching, Cowboys, Indians, Western Art, Outlaws, Military, History, Exploration. Texas, Southwest, Plains, Rockies, Calif., Northwest, Canada, Alaska. CATALOGS: $3.00 / year (4 issues) **ALMAGRE BOOKS,** 3271 Spring Branch Rd, Bloomington, IN 47401.

A Travelers Guide to The National Parks and Natural Areas of Northwestern Mexico



newly published—shows how previously inaccessible areas of this incredible region can now be easily visited by private vehicle. Details Barranca del Cobre, Basaseachic Falls, Pinacate Lava Fields and Baja National Parks. Highlights accessible canyons, mountains, islands, and Indians of Northwestern Mexico. Seven excellent maps and many 4-color reproductions—Available now for only $9.95 postpaid. **American West Trader,** P.O. Box 31325, Tucson, AZ 85751.

RARE and EXOTIC
Houseplants from Seed
Flowering Trees — Vines — Fruits
Desert Plants — Bonsai — Much More
Catalog $1.00 — Refunded
THE ACACIA TREE
Box 22866, Lexington, Ky. 40522

HIGH COUNTRY EXPEDITIONS

QUALITY WILDERNESS ADVENTURES
BEARTOOTH-ABSAROKA - WILDERNESS
Permanent Wilderness Camp-Licensed Guides and Outfitter

- ▶Custom summer pack trips
- ▶Photograph the alpine from horseback
- ▶Fish high mountain lakes for native Cutthroat
- ▶Artist workshop with noted outdoor Artist

Write or call for more information and free color brochure

NYE, MONTANA 59061 PHONE: (406) 328-8429

CLASSIFIED

Remington's Bronze
BRONCO BUSTER

Full-size Remington & Russell quality recasts.

$1150

LOWEST PRICES!
We accept VISA/MC

Send for brochure:

AMERICAN ART COLLECTION
1548-D Adams, Dept. A
Costa Mesa, CA 92626
(714) 754-6962
Satisfaction guaranteed

CANADIAN COUNTRY PROPERTIES. Our 70th year. Terms available. Catalog airmailed $1.00. Dignam Corporation, Suite 404H, 85 Bloor St., East, Toronto, Ontario M4W 1B5, Canada.

TRAVELING TO YELLOWSTONE PARK? 1985 Guidebook. Accommodations, Rates, Sights, Tours, Maps, Photos. 92 pages. $6.95 postpaid. RSG Publications, Dept. AW, 205 South Main, Livingston, MT 59047.

Tents, tipis, packing, camping, riding, hunting, and other outdoor products. Unique and innovative. Free Catalogue. Blue Star, Dept. AW, 300 W. Main, Missoula, Montana 59802 or call (406) 728-1738.

Authentic American Indian pottery and baskets. For photos and price list, write Creative Arts of The Southwest, 1060 Los Altos Avenue, Los Altos, Calif. 94022.

PATCHWORK QUILTS. Patchwork Factory, 42 Pond Street, Billerica, Massachusetts, 01821.

Western history books. Out of print, scarce. Request catalogue. Robert Mitchell. 448 Olive Ave., Fremont, Calif. 94539.

"GRAND CANYON" psycho-sensual, helicopter exploration VIDEO. Breathtaking music. Critically acclaimed. Details FREE. Beerger Productions, 3217 Arville, Las Vegas, Nevada 89102, (702)876-2328.

Knives, swords, historic weapons. Unbeatable prices. Catalogs $2.00. DeIntinis, 107 Summit Ave., S.I., N.Y. 10306.

Early books on the American West. Illustrated 40-page catalogue $1. Paper Americana, 576 Massachusetts, Lunenburg, MA 01462.

"INDIAN RELIC TRADER," Newspaper. Buy-sell-trade. $1.00 sample-$8.00 year. Box 88, Sunbury, Ohio 43074.

Chile Line: The narrow rail trail to Santa Fe. A history of the Denver and Rio Grande's narrow gauge branch to Santa Fe. 100 pages, profusely illustrated. $8.95 plus $1.00 postage, handling. Las Trampas, Box 790, Espanola, NM 87532.

NORTH CASCADES trips and seminars. Backpacking, bicycling, mountaineering, rafting, kayaking and skiing for all abilities. Free catalog: Liberty Bell Alpine Tours, Box W, Mazama, Washington 98833, (509)996-2250.

CLASSIFIED ORDER FORM

NON-DISPLAY RATE: $3.25 per word
(10 word minimum)

DISPLAY RATE: $135.00 per column inch
(one column inch minimum).

AMERICAN WEST's paid circulation is now 150,000. Your classified ad will be reaching a greater audience than ever before. All advertisements must be accompanied by check or money orders payable to AMERICAN WEST and must be received no later than the 25th of the third month preceding cover date. Send us your ad today, using the form below.

Please insert my ad _____ times, beginning with the _____ issue, for a total of _____ insertions.

Enclosed is my check for $ _____

Name _____

Address _____

City _____ State _____ Zip _____

Tel. No. and Area Code _____

Authorized Signature _____

Copy for Classified Advertisement _____

Send all copy, payments and camera-ready material to: Carol D. Johnson
AMERICAN WEST
3033 N. Campbell Avenue
Tucson, Arizona 85719
800-223-5369 Ext. 271

CLASSIFIED

CORONADO, CALIFORNIA. "THE SHORES." Luxurious oceanside condominiums, 1 BR, 1 BA, 1050 sq. ft., $269,500. 2 BR, 2 BA, 1300 sq. ft., $399,500. Both elegantly furnished. Perfect weather, perfect setting. Dee Rodenburg, Lee Mather Co., Realtors. Call Collect (619)435-1851.

Montana — Absaroka wilderness pack trips—June-October. Fishing, prehistory, hunting. Dr. Lahren—Archaeologist, Bx. 1218, Livingston, MT 59047, (406) 222-3168.

WESTERN STATUES—Cowboys, Indians, Broken Arrow $89.95 32" tall. Full color detailed. Send $1.00 for catalog. Reilly's Treasured Gold, Box 2975, Pompano Beach, FL 33072, (305)971-6102.

REAL GARNET BEAD STRANDS, 24" long, $29.00 postpaid, Satisfaction guaranteed. The Byrd House, P.O. Box 605, Port Neches, TX 77651.

SCRIMSHAW on horn and antler. Giftware and custom work. List $1.00. Alan Jiranek, 9065 Van Emmon, Yorkville, IL 60560.

Beads, Beads, Beads, 10/0, 11/0, 12/0, 13/0, 14/0. Seed beads, feathers, American Indian Craft supplies. Send $2.00 for latest catalog. Wakeda Trading Post, P.O. Box 19146, Sacramento, CA 95819.

OUT-OF-PRINT BOOKS LOCATED. Send Wants. Western Catalogue $1.00. Booklook, 51AR Maple Ave., Warwick, NY 10990.

FREE MUSIC LESSON, "Learn Chording." Piano, organ, guitar. Fast! Easy! Davidsons, 6727AM Metcalf, Shawnee Mission, Kansas 66204

Ride with cowboys on old style cow-ranch. Brochure. TX Ranch, Box 453, Lovell, WY 82431.

GET AWAY FROM IT ALL! Small southern Arizona community. Mountains and sunshine. Ideal year around climate. Carefully planned 5 acre parcels. Grass and trees. Cluster design. Underground power and phone lines. Price $22,000, terms available. Casas Arroyo, P.O. Box 505, Sonoita, AZ 85637, 602-455-5237.

Wyoming Books by Marion V. Allen for Sale. "Early Jackson Hole" 400 pages of History & 100's of pictures $15.00 prepaid. "Snap" a Special Horse, Early Wyoming homesteading, many pictures $7.00 prepaid. Bear Creek Trading Post, Box 65, Shingletown, CA 96088.

Be prepared for the long awaited return of Halley's Comet. See "Comet Halley: Once in a Lifetime" in the Star Theater, browse around the "Comet Corner" in the Astronomy Store and search the skies with Arizona's only public telescope.

Tuesday through Friday 10-5 & 7-10P.M.
Saturday and Sunday 1-5 & 7-10P.M.

FLANDRAU PLANETARIUM

Cherry at University Mall
Tucson, Az. 85721
Show times and prices (602)621-4556

Come
savor the true flavor
of the Southwest

Nestled in the hills north of Santa Fe lies Rancho Encantado, the enchanted ranch. You'll find casual elegance accented by adobe and wood. You'll enjoy horseback riding, tennis, swimming, hiking with golf nearby. And surrounded by breathtaking vistas, you'll dine on a variety of tantalizing foods, superbly prepared. Accommodations, including 1-story Condos, for business groups and your personal pleasure.

Rancho Encantado

Route 4, Box 57C
Santa Fe, N.M. 87501
(505) 982-3537

Mobil 4*

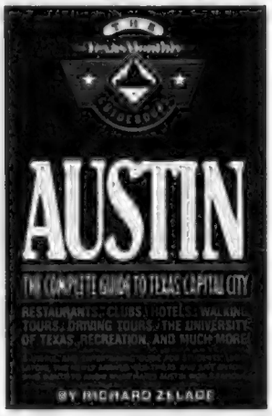
Coming soon in American West

COURTESY BUFFALO BILL HISTORICAL CENTER, CODY, WYOMING

AMERICAN WEST will tell the story of **Levi Strauss** and his "waist-high overalls" that became the blue jeans worn round the world.

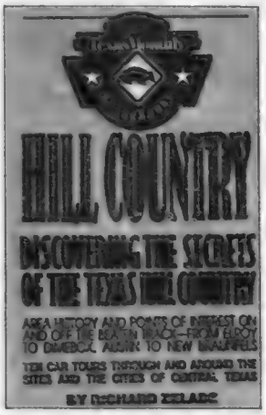
Wendell Berry writes about the significance of abandoned grain elevators across the plains, tying them to the **fate of the farmer.** Laurance Aiuppy's stunning photographs accompany Berry's comments.

We'll bring you photographs of **"Beautiful Daring Western Girls"** who performed in Wild West Shows during the early years of this century and tell you about their **skills and exploits.**

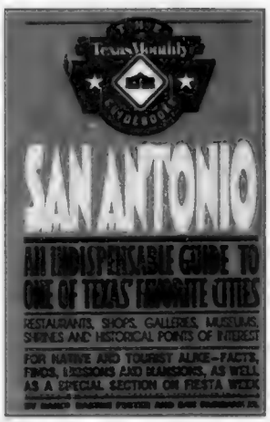


AUSTIN $9.95

Travel Year–Round with ★ TexasMonthlyPress

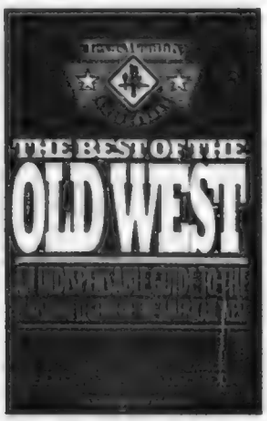


HILL COUNTRY $9.95

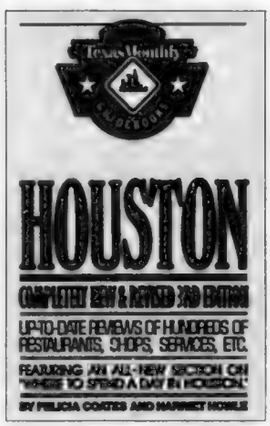


SAN ANTONIO $9.95

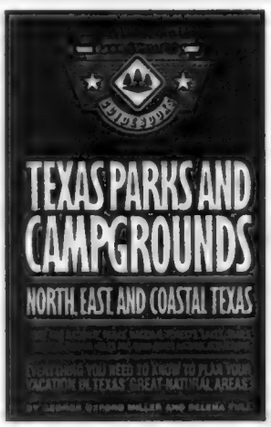
TEXAS $13.95



OLD WEST $9.95


HOUSTON
UP-TO-DATE REVIEWS OF HUNDREDS OF RESTAURANTS, SHOPS, SERVICES, ETC.
FEATURING AN ALL-NEW SECTION ON "WHERE TO SPEND A DAY IN HOUSTON"
BY FELICIA CORTES AND HARRIET HOWLE

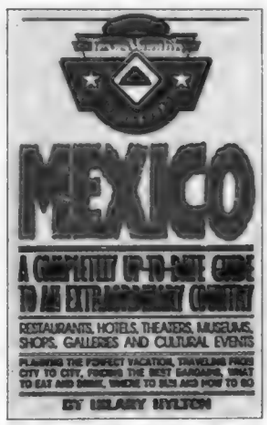
HOUSTON $8.95



TEXAS PARKS & CAMPGROUNDS

North, East, & Coastal — Central, South, & West

$7.95 each



MEXICO $8.95

Available at Fine Bookstores Everywhere
or Directly from Texas Monthly Press, P.O. Box 1569, Austin, Texas 78767

Name _____
Address _____
City _____ ST _____ Zip _____

Please enclose a check or money order
or
Charge your Visa or MasterCard **(circle one)**
CC# _____ Exp _____

Please Allow Two to Four Weeks Delivery

Please Send Me:	Cost
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
Texas Residents add 5.125% Sales Tax	_____
Shipping	$2.00
Total	_____

TM04

American Airlines presents . . .

AAloha condo

All Suite HAWAII

hcp Hotel Corporation of the Pacific

Enjoy the best of both worlds . . . the value of a condo and the services of a hotel . . . with the AAloha Condo tour package.

Fly American Airlines in wide body comfort to your own Hawaiian condominium. Altogether you can choose from 14 resorts where every room is a studio, 1, 2 or even 3-bedroom suite. All are managed by Hawaii's leader, Hotel Corporation of the Pacific.

And, all offer the services of a fine resort . . . like daily maid service, swimming pools, jet spas and complimentary parties. Most have restaurants and tennis is always free. Plus, you get the convenience and value of a complete kitchen.

Prices begin at only $16 per person* for four including an Avis rental car with ***unlimited free*** mileage. Best of all, you qualify for these low rates even when you fly on American Airlines' lowest fares.

* Land rates only, based on 4 persons, 2 night minimum stay.

See your travel agent or call American Airlines toll free

(800) 433-7300

Please send me more information on the AAloha Condo Program. Mail to: AAloha Condo, MD1045, American Airlines, Inc., P.O. Box 619619, Dallas/Ft. Worth Airport, TX 75261-9619

Name

Address

City State Zip

1

AVIS hcp Hotel Corporation of the Pacific HAWAIIAN AIR

AMERICAN WEST
is sponsored by the
WESTERN HISTORY
ASSOCIATION

President
Gene M. Gressley
University of Wyoming, Laramie

Vice President
Gilbert C. Fite
University of Georgia, Athens

Executive Secretary
William D. Rowley
University of Nevada, Reno

Council Members
Judith Austin, Idaho Historical Society; Richard Etulain, University of New Mexico; Norris Hundley, University of California, Los Angeles; Myra Ellen Jenkins, Santa Fe; Francis Paul Prucha, S. J., Boston College; Dwight L. Smith, Miami University; C. L. Sonnichsen, Arizona Historical Society, Tucson; Ron Tyler, Amon Carter Museum

Sponsoring Members: American Bibliographical Center—Clio Press; Amon Carter Museum of Western Art; University of Arizona; Arizona Historical Foundation; Arizona Historical Society; Arizona State Library, Archives and Public Records; Arizona State University; University of Arkansas; The Bancroft Library; Baylor University; Boise State University; Brigham Young University; Buffalo Bill Historical Center; Center for Western Studies, Joslyn Art Museum—Omaha; University of Colorado; University of Southern Colorado; Colorado State Historical Society; Colorado State University; Denver Public Library; Eugene Public Library; Fort Hays State University; Fort Lewis College; Indiana University; Institute of the American West; Kansas State Historical Society; Kansas State University; Kirkpatrick Foundation; Little Big Horn Associates; Los Angeles County Museum of Natural History; University of Maryland, College Park; University of Southern Mississippi; University of Missouri System; Montana Historical Society; University of Montana; Montana State University; Western Montana College; University of Nebraska; Nebraska State Historical Society; University of Nevada, Reno; New Mexico State University; University of New Mexico; University of Oklahoma; Oklahoma Historical Society; Oklahoma State University; Order of the Indian Wars; University of the Pacific; Pacific Lutheran University; Prorodeo Hall of Champions and Museum of the American Cowboy; Shaw Historical Library, Oregon Institute of Technology; East Tennessee State University; University of Texas, Arlington; Texas A&M University; Texas Tech University; University of Toledo; *True West-Old West* Magazine; Uinta County Library System; University of Utah; Utah State University; University of Washington; Washington State University; Western Museum of Mining & Industry; Westerners International; University of Wyoming.

Western Art Notes

COURTESY THE CLARKE MUSEUM, PHOTO BY JIM TOMS

Karok Basketry and Dance Regalia

One hundred and seventy-nine pieces of fine Karok basketwork and dance regalia will soon join the eclectic collection of Indian artifacts, mounted birds, pioneer relics, antique firearms, photographs, and paintings at the Clarke Museum in Eureka, California. Among the examples of rare Karok works are three ceremonial dance feathers decorated with white deerskin; braided, dyed porcupine quills; and redheaded woodpecker scalps. Each of these pieces was created by splitting two eagle feathers lengthwise, attaching the desired materials, and fastening each half-feather end to end, making an elaborate, two-foot plume.

Baskets for cooking, eating, and storage—as well as headgear for ceremonial and everyday use—show the elegant color and designs employed by this tribe, the "upstream" people of the Klamath River who were noted for their basketry. The lidded basket pictured here was woven with an obsidian blade design. It is made of bear grass, maidenhair fern, and hazel sticks—just one of several pieces in the collection by the "Rembrandt" of Karok basketmakers, Lucy Hickox. Recently purchased by the Clarke Museum, this assemblage of predominantly nineteenth-century artifacts was begun more than 130 years ago by Karok basketmaker Emma Pearch and her husband John. An exhibition of the new acquisitions will go on permanent display May 14, commemorating the centennial birthday of the Museum's founder, Cecile Clarke.

Beautiful Daring Western Girls: Women of the Wild West. Photographs, posters, and memorabilia—on exhibit through May 28 at the Buffalo Bill Historical Center in Cody, Wyoming—illustrate the emergence of women as equestrian performers during the years of the Wild West shows. Between June 15 and September 12, the works of contemporary Western landscape painter William Hurley will hang in the Center's rotunda gallery.

Edward Steichen, master of portraiture, photographed many popular personalities between 1924 and 1938, when he was chief photographer for the Condé Nast publications *Vanity Fair* and *Vogue*. Nearly one hundred of these portraits—including those of Charlie Chaplin, Greta Garbo, and Orson Welles—make up a traveling exhibition organized by the Minneapolis Institute of Arts that will be exhibited at the de Saisset Museum at the University of Santa Clara in California through June 16.

Prints, Drawings, and Crafts in various media will be on view at the Arkansas Art

© 1983

NEVER BEFORE — has pure gold been added to perhaps the most beautiful of all United States silver coins — *The Walking Liberty* half dollar.

Our bi-tone process by which 24 Karat gold is applied to coins *with extreme precision,* creates a magnificent two tone of precious metals. These miraculous silver and gold coins are available only through Cartwheels, Inc. of Wilmington, Delaware.

The coins are authentic and *not* newly minted medals. Our exclusive coin cover, Lenscote II, permanently seals and protects the two tone beauty. The necklace, complete with a 14 Karat gold filled 24" chain and frame is $129. The money clip set in 24 Karat gold plate is $69.

If possible we would like to send a date meaningful to you between the years 1934 and 1947. A numbered Certificate of Authenticity comes with each piece and all are gift wrapped. We guarantee a full refund, if on receipt, you are not completely delighted. Price is subject to change.

(Delivery within one week from receipt of order)

CARTWHEELS, INC.
2500 Grubb Road
Wilmington, DE 19810

Order TOLL FREE
800-441-7566

Send _____ Necklaces, _____ Money Clips, _____ Date
Check Enclosed $_____ Charge DC, AE, MC, VISA $_____
Card # _____
Exp. Date_____ Telephone # _____
Name _____
Address _____
City/State/ZIP_____

Follow The Trail This Summer In Your Family Car!

paperback $14.95
hardcover $24.95
looseleaf $27.95

The trail appears as a thin red line over a base of current county maps, from Independence, Mo., to Oregon City, Ore. Other titles: The Oregon Trail Revisited, $6.95 pb; Historic Sites Along the Oregon Trail, $12.95 pb, $24.95 hardcover.

the patrice press (add $2 per book shipping)
Box 42A / Gerald MO 63037 / (314) 764-2801

Quality Craftsmanship
In The Finest Cowboy Tradition....

Photo by Terry D. Moore

Sower Saddle & Silver

All custom made to your order
All hand engraved
All at affordable prices!

Free Brochure

Carl & Leslie Sower
Rt. 1, Box 225 Belen, New Mexico 87002 505-864-3420 Dept. AW

Art Notes

Center's Rockefeller Gallery and its new Decorative Arts Museum in Little Rock between May 3 and May 26. This eighteenth annual exhibit displays contemporary works by artists living in Arkansas, Texas, Louisiana, Mississippi, Missouri, Oklahoma, and Tennessee.

Oo-oonah: The Art of the Taos Pueblo Children. The work done at the Taos Pueblo Day School during the sixties and seventies under the creative instruction of Constantine Aiello was fresh and imaginative. Various techniques and subjects—birds, buffalo, deer, landscape, religious ceremonies, and everyday events—are represented among the sixty-four pieces on exhibit through June 16 at the Millicent Rogers Museum in Taos.

An Age of Gold: Three Centuries of Paintings from Old Ecuador surveys the work of artists of the San Andres School of Art in Quito, Ecuador—the first fine arts school in the New World. Styles from Mannerism to Baroque, Rococo to Neoclassic, are presented in works done by Indian chieftains, members of the colonial aristocracy, and priests schooled in Europe. "An Age of Gold" was organized by the Smithsonian Institution Traveling Exhibition Service, and will be at the Colorado Springs Fine Arts Museum through May 19.

Hopi: Songs of the Fourth World. A Hopi farmer, religious elder, grandmother, potter, and others in this film speak about the preservation of traditional Hopi ways. Winner of several awards from American Indian, national educational, anthropological, and other cinematography festivals, *Hopi* by Pat Ferrero is cited as a faithful and sensitive portrait of a people. The film is now being distributed for use in libraries, museums, and community groups, as well as for theatrical screenings. For more information call New Day Films, (201) 633-0212.

American Paintings, Watercolors, and Drawings from the Collection of Rita and Daniel Fraad. Emphasizing American Impressionism of the late nineteenth century and American Realism of the early twentieth century, this exhibition includes the work of such masters as Winslow Homer, John Singer Sargent, John Sloan, Edward Hopper, George Bellows, and Joseph Stella. The show opens May 24 and runs through July 14 at the Amon Carter Museum in Fort Worth, Texas, with a special program of lectures scheduled for June 8.

The Louis L'Amour Collection

Send no money now –but mail today!

Explore Silver Canyon for 10 days risk-free!

☐ **YES!** Please send me *Silver Canyon* for a 10-day free examination, and enter my subscription to The Louis L'Amour Collection. If I decide to keep *Silver Canyon*, I will pay $9.95 plus shipping and handling and receive one additional volume per month on a fully returnable, 10-day free examination basis. There is no minimum number of books to buy, and I may cancel my subscription at any time.

80103

Name *(please print)*

Address

City State Zip

In Canada, mail to: Bantam Books Canada, Inc., 60 St. Clair Avenue East, Suite 601, Toronto, Ontario M4T 1N5

4MA25

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT NO. 2154 HICKSVILLE, NY

Postage will be paid by addressee:

The Louis L'Amour Collection

Bantam Books
P.O. Box 956
Hicksville, New York 11802

Let a master storyteller paint you a picture of the past–a sweeping panorama of the Old West as it really was

Experience the true Old West in the adventure-packed pages of The Louis L'Amour Collection

Imagine that you're surrounded by the immense stillness of a desert night. Millions of stars are strewn across the sky. A crackling campfire pushes back the blackness. You sit just beyond the orange glow of the flames, listening intently to a powerful yet soft-spoken man as he narrates tales of a time long ago.

You're listening to Louis L'Amour, one of the world's most popular storytellers, with over 110 million copies of his books in print. In each book he brings to vivid life all the excitement, romance and sheer adventurous spirit of the American frontier.

The Old West is long gone. We'll never see its like again. But through Louis L'Amour's unique ability to dramatically recapture this exciting era—its people, who they were and how they lived—the Old West lives on...

Ride into adventure with master storyteller Louis L'Amour

Let Louis L'Amour take the reins and draw you into the past through the most realistic and gripping tales of the Old West you'll ever read. You'll get more than action-filled entertainment... you'll enjoy a blend of thrill-packed adventure and meticulously researched historical fact.

And now, you can build a *permanent* library of these stirring Western novels.

Presenting The Louis L'Amour Collection

The Louis L'Amour Collection is a series of hard-cover editions of Louis L'Amour's true-to-life tales of the men and women who tamed the Wild West.

Like a good saddle, these volumes are made to last. Bound in rugged sierra-brown simulated leather with gold lettering, The Louis L'Amour Collection will be a handsome addition to your home.

Silver Canyon, one of the exciting sagas featured in The Louis L'Amour Collection

Silver Canyon opens the series. It's the gritty tale of gunfighter Matt Brennan and his lone battle against duelling ranchers in one of the bloodiest range wars the West had ever seen.

Enter Louis L'Amour's West for 10 days without obligation

Examine *Silver Canyon* without risk or obligation. If you're not satisfied, return it within 10 days and owe nothing.

If you decide to keep *Silver Canyon*, pay just $7.95 plus shipping and handling, and you'll automatically receive one new volume each month. No minimum purchase is required; you may cancel your subscription at any time.

Set out on an action-packed journey into America's legendary Wild West in The Louis L'Amour Collection. Fill in and mail the coupon below today.

60103

The Louis L'Amour Collection

Send No Money Now—But Mail Today!

The Louis L'Amour Collection
Bantam Books, P.O. Box 956, Hicksville, NY 11801

☐ **YES!** Please send me *Silver Canyon* for a 10-day free examination and enter my subscription to THE LOUIS L'AMOUR COLLECTION. If I keep *Silver Canyon*, I will pay $7.95 plus shipping and handling and receive one additional volume per month on a fully returnable, 10-day free-examination basis. There is no minimum number of volumes to buy, and I may cancel my subscription at any time.

4MA35

Name _____
(please print)

Address _____

City _____ State _____ Zip _____

© Bantam Books, 1981

COURTESY HAWAII STATE ARCHIVES

Hawaii's Dashing Pa'u Riders

When a trader named William Shaler first introduced horses to the Hawaiian Islands in 1803, the local people were quick to put them to use. King Kamehameha I, it is said, was the first to learn to ride, and other Hawaiians soon delighted in "careering along the beaches or dusty trails." Both sexes mastered equestrian skills, and before long the women developed a *pa'u* riding costume.

A *pa'u* was the Hawaiian woman's traditional short skirt made from the bark of a species of mulberry tree, which was pounded, bleached, and dyed in different colors. Because the women of the islands found sidesaddle—the proper manner of riding prescribed for European ladies—not only unsteady, but dangerous, they adopted a type of *pa'u* that allowed them to ride astride safely and still look feminine. Traveling along the roads and trails of Honolulu on their way to social gatherings and other functions, the "impetuous" Hawaiian equestriennes exhibited their superb horsemanship, as well as their ribbon-trimmed Stetsons and long skirts of colorful, flowing material. One observer in the 1850s commented that the equestrian skills of these ladies would be envied by "many a lady in civilized nations." By the turn of the century a group of them had been organized to appear in parades. They became known as Pa'u Riders.

The modern Pa'u Rider still straddles her mount—draped in yards of billowing satin and leis of fragrant flowers—during Hawaii's famed King Kamehameha Day parade (held each year on June 11) and during the annual Aloha Days parade (in October or November). Wrapping the cloth is an art; the material is twisted elaborately around the waist and legs and fastened with kukui nuts. Each of the main islands in the Hawaiian chain is represented by a Pa'u Rider wearing the color and flower of that island. The horses, too, are colorfully decorated. A Pa'u Rider today, as she parades through the streets, evokes an impressive image of the daring and hard-riding women of Hawaii's picturesque past.

This fascinating bit of Western lore and the photograph of turn-of-the-century Pa'u Riders were sent to us by Virginia Cowan of Aiea, Hawaii.

AMERICAN WEST offers twenty-five dollars to any reader whose suggestion is accepted for publication in Western Lore. We seek information (with relevant pictures, if possible) about unusual artifacts, unusual and little-known happenings, unusual and little-known people, as well as little-known facts about well-known people—all in Western history. What do you have? Space is limited; so, we have to be selective. We'll take good care of your pictures and return them promptly. Be sure to pack pictures carefully and enclose a stamped, self-addressed envelope for their return. Send submissions to AMERICAN WEST, Western Lore, 3033 N. Campbell Avenue, Tucson, Arizona 85719.

THE SANTA FE RAILWAY'S MIMBREÑO DINING CAR CHINA

We are proud to announce Nostalgia Station's™ exclusive authorization by the Santa Fe Railway Company to recreate their famous Mimbreño Dining Car China. Introduced on the luxurious 1936 "Super Chief", this striking service is based on designs of the ancient Mimbres Indians. Amazingly contemporary in

Mimbreño

its appeal, the ware is also most unusual for its variety of stylized animals.

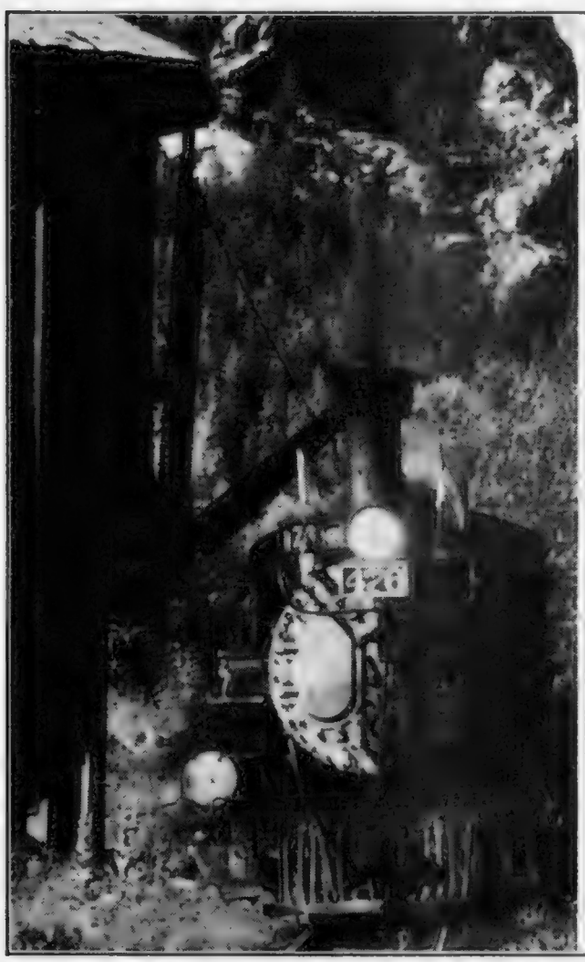
The designs are identical to the originals, in the same shade of brick red with charcoal accents on a white vitreous china body. All ware carries the elaborate Santa Fe backstamp. ***A full color brochure listing these and other pieces is $1.00; free with purchase.***

Dinner Plate, 9¾", Geometric	*$24.00*
Coffee Cup and Saucer, Parrot	*$25.00*
Bread Plate, 6⅛", Round Turtle	*$13.50*
Salad Plate, 7⅛", Antelope	*$14.50*
Place Setting, not shown	*$72.00*
Cereal Bowl, 6½", Rabbit	*$13.50*
Soup Plate, 9¼", Square Turtle	*$21.00*
Sugar Bowl with Lid, Geometric	*$29.00*
Creamer, 3½ oz., Curvilinear	*$16.00*
Fruit Bowl, 5", Prairie Chicken	*$11.50*
Demitasse Cup and Saucer, Half Bird, Half Beast	*$22.00*

To order, send a check including 5% for shipping (minimum $3.50). Md. residents add 5% tax. Phone (301) 837-3625 or mail your VISA/MC/DC card number and expiration date to:

Nostalgia Station,™ 1000 Light Street, Dept. 660, Baltimore, MD 21230

Satisfaction guaranteed. 24 page Railroadiana Catalog $2.00; free with purchase.

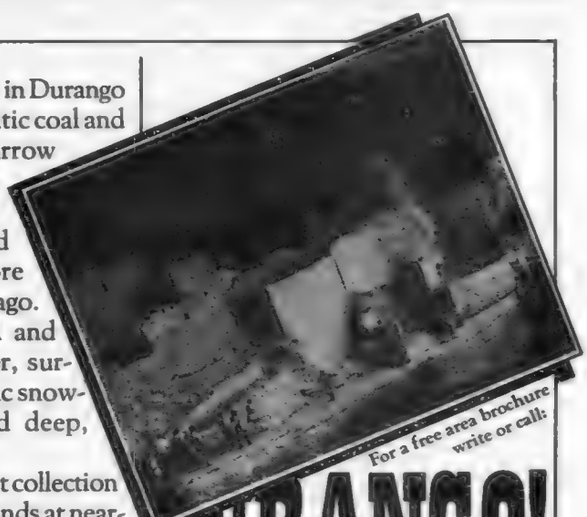


History lives on in Durango where authentic coal and steam-powered narrow gauge locomotives haul passengers along the rugged route built for ore trains a century ago. Remnants of gold and silver mining linger, surrounded by majestic snow-capped peaks and deep, rocky gorges.

The world's largest collection of cliff dwellings stands at nearby Mesa Verde National Park, where ancient Anasazi Indian communities were carved into precarious cliffs over a thousand years ago, then mysteriously deserted.

Enjoy Durango's warm western hospitality, amidst charming Victorian homes, rowdy honky-tonk saloons and shimmering aspen. There's so much to do in Durango!

Durango is served by America West, Aspen, Frontier Commuter and Transcolorado Airlines, with direct service from Albuquerque, Denver and Phoenix.



For a free area brochure write or call:

DURANGO! Colorado

Durango Tourism Board/Chamber of Commerce
Box 2587CK, Durango, CO 81301 • 303/247-0312
Purgatory/Dgo. Central Reservations 800/525-0892

Please send me your free area brochure.

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

CY585AW

LIVE THE AMERICAN WEST

Photo by Doyen Salsig

The Pioneer Spirit is Still Alive

Do you think the American West is just ghost towns, tapped out mines, and cemeteries full of gunfighters? We don't!

The people who settle the American West are hard working people. They struggle against the odds, against nature itself, to build a better life for themselves and their children. We celebrate the pioneer spirit of yesterday and today, and bring it right to your door.

AMERICAN WEST is alive with the excitement of the pioneers.

Each bimonthly issue takes you down the back roads and trails to today's American West.

Join us in this special tribute to the culture, heritage, and spirit of the American West through this special subscription offer.

FIRST ISSUE FREE!
Simply call this toll free number—
1-800-433-0700
to place your order.

Send no money now. We will bill you only $12.00 for your one-year subscription.

If, after receiving your first issue of AMERICAN WEST, you are not completely satisfied, you may cancel at no obligation.

TO ORDER CALL TOLL FREE
1-800-433-0700

The Pioneer Spirit is Still Alive!

in the pages of

AMERICAN WEST

Each bimonthly issue takes you down the back roads and trails to today's AMERICAN WEST.

Save $6 off the newsstand price by returning this card today. Send no money now. We'll bill you later.

☐ **YES!** Please sign me up for a year's subscription to AMERICAN WEST (six issues in all) for just $12.00—a third off the newsstand price!

I understand that if after receiving my first issue I no longer wish to subscribe, I may write "cancel" on your invoice and return it to you with no further obligation.

Name

Address

City/State/Zip

Add $4 each for orders outside the U.S. Please allow 4 – 6 weeks for delivery. E5ϕ32-9

The Pioneer Spirit is Still Alive!

in the pages of

AMERICAN WEST

Each bimonthly issue takes you down the back roads and trails to today's AMERICAN WEST.

Save $6 off the newsstand price by returning this card today. Send no money now. We'll bill you later.

☐ **YES!** Please sign me up for a year's subscription to AMERICAN WEST (six issues in all) for just $12.00—a third off the newsstand price!

I understand that if after receiving my first issue I no longer wish to subscribe, I may write "cancel" on your invoice and return it to you with no further obligation.

Name

Address

City/State/Zip

Add $4 each for orders outside the U.S. Please allow 4 – 6 weeks for delivery. E5ϕ32-9

The Pioneer Spirit is Still Alive!

in the pages of

AMERICAN WEST

Each bimonthly issue takes you down the back roads and trails to today's AMERICAN WEST.

Save $6 off the newsstand price by returning this card today. Send no money now. We'll bill you later.

☐ **YES!** Please sign me up for a year's subscription to AMERICAN WEST (six issues in all) for just $12.00—a third off the newsstand price!

I understand that if after receiving my first issue I no longer wish to subscribe, I may write "cancel" on your invoice and return it to you with no further obligation.

Name

Address

City/State/Zip

Add $4 each for orders outside the U.S. Please allow 4 – 6 weeks for delivery. E5ϕ32-9

NO POSTAGE
NECESSARY
IF MAILED IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT NO. 695 MARION, OHIO

POSTAGE WILL BE PAID BY ADDRESSEE

American West
Subscription Dept.
Box 1960
Marion, Ohio 43306

NO POSTAGE
NECESSARY
IF MAILED IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT NO. 695 MARION, OHIO

POSTAGE WILL BE PAID BY ADDRESSEE

American West
Subscription Dept.
Box 1960
Marion, Ohio 43306

NO POSTAGE
NECESSARY
IF MAILED IN THE
UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT NO. 695 MARION, OHIO

POSTAGE WILL BE PAID BY ADDRESSEE

American West
Subscription Dept.
Box 1960
Marion, Ohio 43306

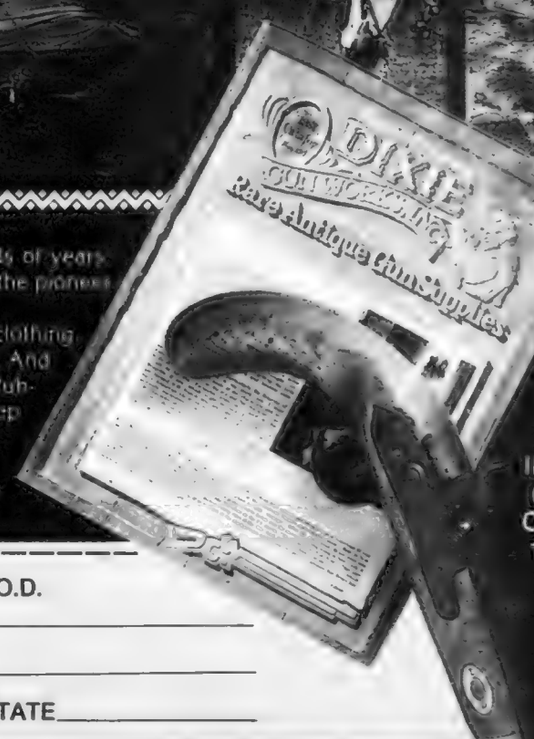
BLACKPOWDER.

It's More Than a Flash in The Pan!

Black powder has been a part of America's heritage for hundreds of years. And today, Dixie Gun Works plays an important role in keeping the pioneer adventure alive.

For over thirty years, we've been THE SOURCE for authentic clothing, guns, weapons and all kinds of supplies for the Blackpowder enthusiast. And now you can order our exclusive catalog detailing all this equipment. Published twice a year, it's an exciting collection of everything you need to keep the colorful muzzleloading days alive.

Blackpowder is not a flash in the pan. It's here to stay.
And so is Dixie Gun Works.



INFORMATION
(901) 885-0700
ORDERS ONLY
1-800-238-6785

SEND IN COUPON AND $3 TODAY ☐ **CHECK ENCLOSED** ☐ **C.O.D.**
CATALOG SHIPPED C.O.D.—$5.00

NAME_____

STREET_____

CITY AND STATE_____

GUNPOWDER LANE, UNION CITY, TN. 38261 Dept.70/5

Western Snapshots Today

This is a picture of me and Old Drifter. Drifter is a phenomenal rhino although he stands only twenty-one hands high at the shoulder. He more than compensates for his lack of bulk with his strength, endurance, and great agility. He is my favorite mount and one of the finest cutting rhinos it has ever been my pleasure to ride. I honestly believe he knows how an animal will move before the animal itself does. Of course this almost uncanny ability also makes Old Drifter a great roping mount. He is already a legend at the Rocking A.D. Ranch, which has long enjoyed a reputation of breeding the finest working rhinos this side of heaven.

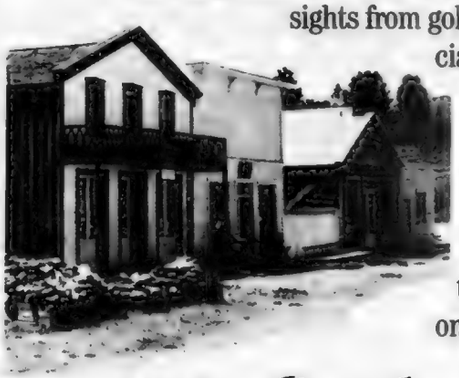
Allen A. Dutton, an Arizonan of sturdy pioneer stock, is a painter, photographer, and artistic prankster living in Phoenix who has been spoofing the public with his "rhino ranching" for several years now. This print, and the accompanying caption, is part of a series on his imaginary working rhinos at the equally imaginary Rocking A. D. Ranch in Yavapai County, Arizona. The photographs are actually made by combining multiple prints taken in various places at various times. The composite picture is then rephotographed to appear as an unmanipulated original—which makes the illusion almost believable.

AMERICAN WEST offers twenty-five dollars to any photographer, amateur or professional, whose Western Snapshot Today is selected for publication on this page. Pictures portraying today's West —the land and its people—in black-and-white or color, will be accepted for consideration. Please specify the type of camera, lens, film, paper, and techniques as well as light conditions used to obtain your photograph. Prints will be handled with care and returned promptly after use. Be sure to pack the snapshots carefully and enclose a stamped, self-addressed envelope. Send submissions to AMERICAN WEST, Western Snapshots Today, 3033 N. Campbell Avenue, Tucson, Arizona 85719.

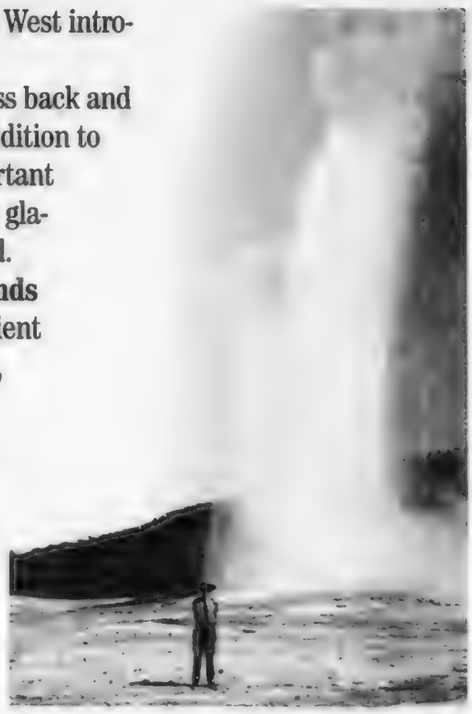
INTRODUCING American West Tours

Come with us to the **real** West . . . as only we can show it to you. American West introduces three tours for 1985 as diverse as the lands we will visit.

Venture with us through the **National Parks of the Rockies** as we cross back and forth over the Continental Divide from Jackson, Wyoming to Canada. In addition to the magnificent vistas, we'll show you the often missed but important sights from gold rush history in tiny Virginia City to glacial history atop Going-to-the-Sun Road.



Or explore **Southwest Indian Lands** in-depth. Learn more about the ancient sites, people and cultures: The Hopi, The Navajo, The Pueblo. At Monument Valley, our Navajo guide will take us by four-wheel drive vehicle on an exclusive tour through 30,000 acres of mesas, buttes and canyons.



We find the heart of the American West

American West also introduces an **Idaho Scenic Adventure** in the unspoiled beauty of the Pacific Northwest. You'll enjoy a leisurely breakfast cruise on beautiful Lake Coeur d'Alene and a jet boat excursion down the white rapids of the Snake River. In between, are all of the mountains, wilderness, sparkling streams and granite basins that make Idaho such a rare destination.

We're proud to offer these tours as an additional service to American West readers. America's foremost **quality** tour operator, Maupintour, will be assisting with all travel arrangements.

Plan a vacation with us this year to your favorite part of the country. After all, who can show it to you better than American West?

For complete tour information on 1985 American West Tours, mail the coupon or call toll-free: 1-800-255-6162

Maupintour

Please send me the 1985 American West Tour folder on:

_____ National Parks of the Rockies

_____ Southwest Indian Lands

_____ Idaho Scenic Adventure

Name_____

Address_____

City_____ State_____ Zip_____

Mail to: American West Tours
P.O. Box 807
Lawrence, Kansas 66044

AWT2

Western Snapshots Yesterday

Tempting fate, these daring students at Oklahoma Agricultural and Mechanical College in Stillwater, Oklahoma Territory, boldly consume the exotic tropical fruit known as bananas. No, this isn't a bizarre initiation rite for a sorority or a quirky campus fad. In about 1900, these modern young ladies posed for a local grocer, who hoped that this photograph would convince his customers that bananas are not deadly.

Actually one of nature's most benign foods, bananas were still a rare commodity in turn-of-the-century North America. Large shipments of the tasty yellow fruit did not reach New York ports until the latter part of the 1800s, where people regarded it as a curiosity and a tropical luxury. In the days before a woman dressed as a banana à la Carmen Miranda danced across our television screens, some Americans believed that bananas were poisonous, perhaps distrusting a foreign food.

Eager to stop these pernicious rumors and start selling some bananas, a Stillwater grocer enlisted the aid of these forward-thinking young women. The students calmly offer each other a taste of this supposedly lethal treat, showing no fear. Their exhibition of bravery did the trick. The dark clouds hovering over the banana's reputation were soon lifted, dissipated by the healthy glow on the women's faces. Banana business was brisk thereafter.

The only woman identified in the photo is a Miss Hunter, second from the right in the middle row. True to the pioneering spirit of her banana-eating comrades, Miss Hunter became the first woman faculty member at Oklahoma Agricultural and Mechanical College, later known as Oklahoma State University.

Robert E. Cunningham, of Fort Worth, Texas, sent us this unique snapshot of Western life yesterday. He purchased the photograph from the collection of Henry M. Wantland, of Stillwater, Oklahoma, who may have taken this unusual picture.

AMERICAN WEST offers twenty-five dollars to any reader whose Western Snapshot Yesterday is accepted for publication on this page. We seek old photographs that tell stories of bygone times. Especially welcome are pictures depicting some forgotten aspect of Western life, serious or amusing. Space is limited; so, we have to be selective. We'll take good care of your pictures and return them promptly. Be sure to pack the snapshots carefully and enclose a stamped, self-addressed envelope. Send submissions to AMERICAN WEST, Western Snapshots Yesterday, 3033 N. Campbell Avenue, Tucson, Arizona 85719.

Image size 20"x24"

Frame and matt included

"Wintering Swans"

an edition of 950 signed and numbered prints from the original by

Gary David Hoffmann

Shiawassee Art offers this limited edition print numbering 950. Each print is museum quality framed and matted under glass ready for hanging. Printed on 100% acid free paper to insure longevity. The initial issuing price is $275.

Shiawassee Art

103½ West Front Street · Ovid, Michigan 48866 · (517) 834-5849

Please accept my order of _____ signed and numbered prints at $275 each.
I enclose check or money order payable to Shiawassee Art
I prefer to pay as follows: ☐ check or money order ☐ Visa ☐ Mastercard

Card No. _____ Exp. Date _____

Signature _____

Please print your
Name _____

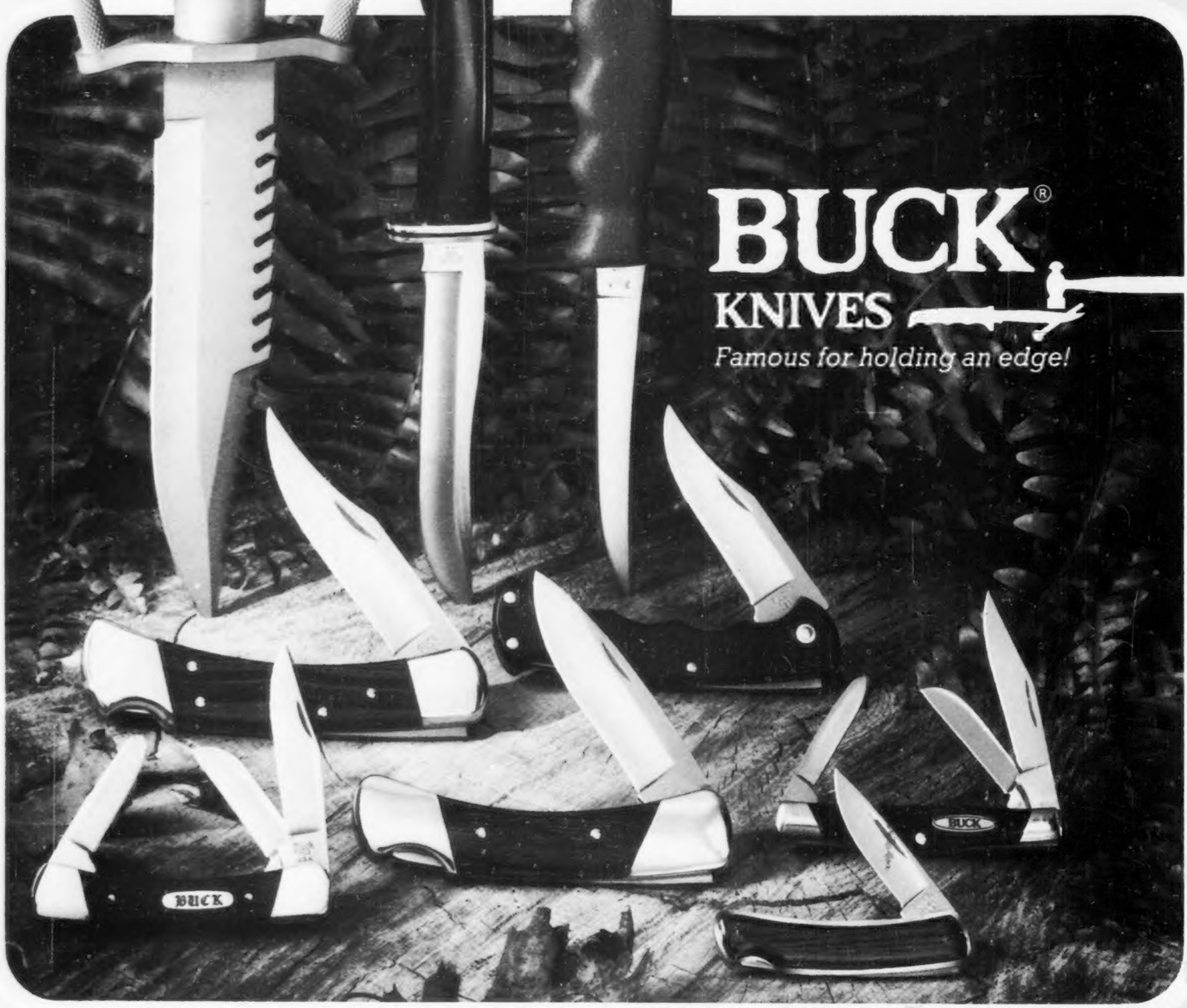
Address _____

City _____ State _____ Zip _____

BUCK®

A knife to fit your every need!

A "Buck Knife" to many people is our famous Folding Hunter. To others, it's one of our great fixed-blade sheath knives. To all of them, Buck is the knife that holds an edge! Yet a lot of folks don't realize just how many knives we handcraft. There's one for almost any purpose you can imagine: hunting, fishing, shop, woodcarving, emergencies, "gentlemen's" knives, gift knives, presentation knives, custom knives, and many more. All with these traits in common: great steel in the blade, proud craftsmanship in the making, and a lifetime guarantee to back it up. No wonder *Buck* is now, more than ever, America's favorite knife!

For more information about knives, and your free copy of Buck's full-color catalog, write:

BUCK KNIVES ***Dept. AW-585***
P.O. Box 1267, El Cajon, CA 92022